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Computation of Commissions and Federal Taxes

WHERE COMMISSIONS ARE BASED UPON PROFITS AFTER DEDUCTING TAXES

By A. van Oss

The computation of commissions and federal taxes is in several instances complicated by the necessity of computing the commission upon profits after deducting the federal tax. Inasmuch as the commission itself is a proper deduction from the gross income, the tax can not be computed without determining the commission, and, vice versa, the commission can not be computed without knowing the amount of the tax.

In the succeeding pages an attempt is made to explain how a procedure can be established and to show the method of dealing with several concrete cases under the 1920 tax, as follows:

Problem I—Commission payable after deducting the entire amount of both excess-profits and income taxes.

" II—Commission payable after deducting the entire amount of excess-profits tax but before deducting the normal income tax, or vice versa.

" III—Commission payable after deducting a portion of the federal tax.

" IV—Commission payable on a sliding scale after deducting the entire amount of both excess-profits and income taxes.

" V—Commission payable after deducting taxes but considering the commission itself as a deductible expense.

In the discussion of the above problems the same hypothetical case has been used throughout, viz.:

Invested capital	$100,000.00
Income before deducting taxes and commission...	70,000.00
Rate of commission, to be applied to profits after deducting federal taxes	20%

Wherever necessary the amount of the income and the rate of commission have been modified to cover the particularities of the individual case.

In the treatment of the above problems the principal object has been to present a simple solution by means of ordinary arithmetic, in each case followed by a proof of its correctness. The first problem has been approached from different angles and has been treated somewhat elaborately to show the methods by which certain fundamental rules and formulæ that have been applied throughout can be constructed. Inasmuch as in actual practice it is not always evident under which bracket the excess-profits tax has to be computed, a special effort has been made to establish a procedure whereby this can be definitely ascertained in each case by arithmetical processes.

In problem IV, where the commission is payable on a sliding scale, this procedure becomes rather complicated and recourse has been taken to a very simple algebraic demonstration; also in the treatment of problem V, giving a solution where the commission is considered a deductible expense rather than a distribution of profit, a simple equation of the first degree has been used. The problem has been introduced not so much because it will be frequently met in actual practice as to dispel any notion that such a consideration will materially complicate the solution.

PROBLEM I

Commission payable after deducting the entire amount of both excess-profits and income taxes

First method of solution:

The method of calculating followed herein will be (a) first to determine the taxes on the basis of the profits before deducting commission; (b) then to calculate a preliminary amount of commission payable on that basis; and (c) thereupon to ascertain the correct amounts of both taxes and commission.

Computation of Commissions and Federal Taxes

(a) *Preliminary computation of the tax*

		Income	*Tax*
Excess-profits credit:			
8% of invested capital ($100,000)	$ 8,000.00		
Exemption	3,000.00	$11,000.00	
Portion of income taxable at 20%:			
20% of invested capital ($100,000)	$20,000.00		
Less excess profits credit	11,000.00	9,000.00	$ 1,800.00
Portion of income taxable at 40%		50,000.00	20,000.00
Preliminary amount of excess-profits tax			$21,800.00
Income tax—10% of:			
Taxable income		$70,000.00	
Less excess-profits tax	$21,800.00		
Exemption	2,000.00	23,800.00	
		$46,200.00	4,620.00
Preliminary amount of federal tax			$26,420.00

(b) *Preliminary computation of commission*

Income before deducting commission	$70,000.00
Deduct preliminary amount of federal tax	26,420.00
Amount on which preliminary commission is to be computed	$43,580.00
Preliminary commission of 20%	8,716.00

(c) *Calculation of correct amount of taxes and commission*

(1) It is evident that the commission actually payable will be higher than $8,716.00; on the other hand, the tax will be less than $26,420.00.

(2) Inasmuch as the commission is payable out of that part of the profit which is taxable at 46%, the tax will be $46 less than $26,420.00, for every hundred dollars of commission payable, namely:

On account of excess-profits tax under the second bracket	$40.00
On account of income tax of 10% on the remainder	6.00
Total	$46.00

(3) For the same reason the commission will be $9.20 (20% of $46) higher than $8,716.00 for every $46 of tax thus overprovided.

(4) It follows from (2) and (3) that for every $100 commission actually payable the tax of $26,420 will be reduced by $46 and the commission determined ($8,716) increased by $9.20, so that

(5) The amount of commission ($8,716) determined in the above preliminary calculation is 90.8% of the correct amount, which will therefore be $\frac{\$8716}{90.8} \times 100 = \$9,599.12$ and

(6) the correct amount of the tax will be $\frac{46}{100} \times \$9,599.12 =$ $4,415.60 less than $26,420, or $22,004.40.

Second method of solution:

The problem may also be approached by (a) determining as the first step the commissions on the basis of the profits before deducting taxes (instead of first determining the taxes on the basis of the profits before deducting commission as above), (b) calculating the preliminary amount of taxes on the amount of net profit so computed, and (c) thereupon computing the correct amounts of commission and taxes—as follows:

(a) *Preliminary computation of commission*

Income before deducting taxes and commission	$70,000.00
Commission at 20%	14,000.00
Balance	$56,000.00

(b) *Computation of the tax on the basis of $56,000.00 taxable income*

		Income	*Tax*
Excess profits credit		$11,000.00	
Portion of income taxable at 20%		9,000.00	$ 1,800.00
Portion of income taxable at 40%		36,000.00	14,400.00
Preliminary amount of excess profits tax			$16,200.00
Income tax—10% of:			
Taxable income		$56,000.00	
Less—excess-profits tax	$16,200.00		
Exemption	2,000.00	18,200.00	
		$37,800.00	3,780.00
Preliminary amount of federal tax.			$19,980.00

(c) *Calculation of correct amount of taxes and commission*:

In this case the following should be observed:

(1) The commission actually payable will be less than $14,000.00, whereas the tax will be more than $19,980.00.

(2) For every one hundred dollars of taxes payable the commission will be $20 less than $14,000.00.

(3) For every $20 less of commissions paid the tax will be $9.20 more, namely:

On account of the excess-profits tax under the second bracket, 40%, or	$8.00
On account of the income tax, 10% of the balance of $12.00, or....	1.20
Total	$9.20

(4) It follows from (2) and (3) that for every $100 of taxes actually payable the commission of $14,000.00 will be reduced by $20 and the tax computed ($19,980) increased by $9.20, so that

(5) the amount of the tax ($19,980) in the above preliminary calculation is 90.8% of the correct amount, which will therefore be $\frac{\$19,980}{90.8} \times 100 = \$22,004.40$, and

(6) the correct amount of commission will be 20% of $22,004.40 =$4,400.88 less than $14,000.00, or $9,599.12.

Proof of correctness of solutions:

The following statement will prove the above results:

Income before deducting taxes and commission	$70,000.00
Deduct—commission payable.....	9,599.12
Taxable income	$60,400.88

Computation of tax

	Income	*Tax*
Excess-profits credit	$11,000.00	
Portion of income taxable at 20%...	9,000.00	$ 1,800.00
Portion of income taxable at 40%...	40,400.88	16,160.35
Total excess-profits tax.....		$17,960.35

Income tax—10% of:			
Taxable income		$60,400.88	
Less—excess-profits tax	$17,960.35		
Exemption	2,000.00	19,960.35	
		$40,440.53	4,044.05
Total federal tax			$22,004.40

Computation of commission

Income before deducting taxes	$70,000.00
Deduct—federal tax payable	22,004.40
Profit on which 20% is payable	$47,995.60
Commission @ 20% (as above)	9,599.12

General rules and formulæ:

It will be noted that the same percentage (90.8%) is applied to the preliminary results of each method and is computed by (1) applying the rate of commission (20%) to the rate of tax (46%), (the above example illustrating the procedure in cases falling under the second bracket), and (2) thereupon deducting the resulting figure (9.2) from 100, in this case leaving 90.8.

If the rate of commission is c and the tax rate is t, the general formula to ascertain the percentage X to be applied either to the preliminary amount of the commission obtained by the first method or the preliminary amount of the tax obtained by the second method will be

$$X = 100 - \frac{c\,t}{100}$$

In case the tax is to be calculated under the second bracket of the excess-profits tax, as in the example given, the above formula works out as follows:

$$X = 100 - \frac{20 \times 46}{100} = 100 - 9.2 = 90.8$$

If the tax is to be calculated under the first bracket,

$$X = 100 - \frac{20 \times 28}{100} = 100 - 5.6 = 94.4$$

If only the normal income tax is payable,

$$X = 100 - \frac{20 \times 10}{100} = 100 - 2 = 98$$

Inasmuch as there are many cases in which it is difficult to determine whether the tax is to be calculated under the first or the second bracket, it will be well to discuss a method whereby this can be readily determined.

Under the terms of the law, the 1920 excess-profits rate of the second bracket (40%) is applied to all profits over 20% of the invested capital. In other words, 20% of the invested capital is the high limit within which the 1920 rate of the first bracket (20%) will be applied, all income over and above that limit being taxable at 40%. It will also be seen that 20% of the invested capital would in such a case represent the earnings after deducting the *unknown* amount of the commission at the *known rate,* or the *taxable income.*

The problem is now reduced to the simple one of finding an amount from which a percentage is deducted when the percentage and the resulting balance are given, as for instance:

What is the amount (x) which leaves $16,580 after deducting 20% of x.

It will at once be seen that $16,580 represents 80% of x, which, therefore, is $20,725.

If we now apply this procedure to the adopted hypothetical case we find that 20% of the invested capital, or $20,000, represents the above-discussed taxable income. Upon this amount a federal tax of $3,420 is payable—$1,800 as excess profits and $1,620 as income tax—leaving $16,580 as the balance of profit after first deducting taxes and thereupon 20% commission.

The amount from which the commission is calculated is therefore $\frac{\$16,580}{.80} = \$20,725$, the commission $4,145, and the amount of income (before deducting either taxes or commission) beyond which the 40% rate will be applicable, $24,145.

In general terms, if the invested capital is C, the amount of the tax T and the rate of commission c, the amount which the earnings

(after deducting commission) can not exceed without becoming subject to the higher rate of excess-profits tax will be:

$$\frac{C}{5} - T \text{ divided by } \frac{100 - c}{100}$$

Again applying this test to the hypothetical case discussed in the foregoing pages, where the invested capital is $100,000.00 and the rate of commission 20%, we find:

$$\frac{\$20{,}000. - \$3{,}420}{.80} = \frac{\$16{,}580}{.80} = \$20{,}725$$

This is therefore the amount on which 20% commission, or $4,145, is to be paid, from which it follows that $24,145 is the limit beyond which, with an invested capital of $100,000 and the commission rate of 20%, the earnings before deducting taxes and commission can not rise without becoming taxable under the second bracket. The method or rule to follow in each case will therefore be:

(a)	Take 20% of the invested capital	$20,000.00
(b)	Compute the federal tax payable on this amount	3,420.00
(c)	The balance will represent the net profit after deducting taxes and commission	16,580.00
(d)	Divide this balance by $\frac{100 - c}{100}$	.80
(e)	The quotient will represent the taxable income, viz	20,725.00
(f)	Add the above amount of the tax	3,420.00
(g)	The sum will represent the limit of profit before deducting either taxes or commission	24,145.00

PROBLEM II

Commission payable after deducting the entire amount of excess-profits tax, but before deducting the normal income tax, or vice versa

Occasionally the commission is to be computed upon the earnings after deducting excess-profits taxes, but before deducting the normal income tax, or vice versa.

The solution of the first case is very simple and, applied to the standard problem used in this memorandum, will work out as follows:

Income before deducting commission or federal taxes	$70,000.00
Preliminary amount of excess-profits tax	21,800.00
Amount on which preliminary commission is to be computed	$48,200.00
Preliminary commission @ 20%	9,640.00

Inasmuch as for every $100 of commission actually payable the tax has been $40 overestimated, and for every $40 of taxes overestimated in the above calculation the commission will be $8 higher, it follows that the above preliminary amount of commission ($9,640) represents 92% of the correct amount, which is therefore $\frac{\$9,640}{.92}$ =$10.478.26. This will leave a taxable income of $59,521.74 on which the excess-profits tax will be:

	Income	*Tax*
Excess-profits credit	$11,000.00	
Portion of income subject to 20% tax	9,000.00	$ 1,800.00
Portion of income subject to 40% tax	39,521.74	15,808.69
Total	$59,521.74	$17,608.69

Commission will therefore be payable on $70,000.00—$17,608.69 = $52,391.31 and at the rate of 20% will amount to $10,478.26 as above.

It will also be seen that the formula, already given, to ascertain the percentage (X) to be applied to the preliminary amount of commission can be used also in this case, viz:

$$X = 100 - \frac{ct}{100} = 100 - \frac{20 \times 40}{100} = 100 - 8 = 92$$

Likewise the formula ($\frac{1}{5}C - T$ divided by $\frac{100-c}{100}$) will provide the means to find the limit beyond which the taxable income will become subject to the 40% tax. The amount on which the commission would have to be paid would accordingly be

$$\frac{.80}{\$20,000 - \$1,800} = \$22,750.$$

The commission would be $4,550 and the high limit of income before deducting taxes and commission $24,550.

The solution of the alternate case, where the commission is payable on the net earnings after applying the normal income tax, but before deducting the excess-profits tax, is equally simple, viz:

Income before deducting commission or federal taxes.....	$70,000.00
Preliminary amount of income tax.....	4,620.00
Amount on which preliminary commission is to be computed....	$65,380.00
Preliminary amount of commission @ 20%.....	13,076.00

Inasmuch as for every $100 of commission actually payable the income tax proper will be decreased by $6.00 and for every $6.00 decrease in the tax the commission will be $1.20 higher, it follows that the above preliminary amount of commission ($13,076) represents 98.8% of the correct amount, which is therefore $\frac{\$13,076}{98.8}$ = $13,234.82. This will leave a taxable income of $56,765.18 on which the tax will be:

		Income	*Tax*
Excess profits credit.....		$11,000.00	
Portion of income subject to 20% tax.		9,000.00	$ 1,800.00
Portion of income subject to 40% tax.		36,765.18	14,706.07
Total excess-profits tax.....			$16,506.07
Income tax—10% of:			
Taxable income		$56,765.18	
Less—excess-profits tax.....	$16,506.07		
Exemption	2,000.00	18,506.07	
		$38,259.11	3,825.91
Total federal taxes			$20,331.98

Commission will therefore be payable on $70,000 less $3,825.91 = $66,174.09 and at the rate of 20% will amount to $13,234.82, as above.

Also here the formula $X = 100 - \frac{ct}{100}$ can be applied, (t)

being in this instance 10% of the 60% remaining after the 40% excess-profits tax has been deducted from the taxable income, or

$$X = 100 - \frac{20 \times 6}{100} = 100 - 1.2 = 98.8$$

Likewise the limit beyond which the taxable income will become subject to the tax under the second bracket can be found with the formula previously used ($\frac{1}{5}C - T$ divided by $\frac{100-c}{100}$). The amount on which the commission would have to be paid would accordingly be $\frac{\$20{,}000 - \$1{,}620}{.80} = \$22{,}975$. The commission would then be $4,595, and the high limit of income before deducting taxes and commission $24,595.

PROBLEM III

Commission payable after deducting a portion of the federal tax

It may also happen that commission is to be computed after deduction of a portion of the excess-profits or income tax or both. The procedure is in principle the same as that followed in the previous examples. For instance, in case commission is to be computed on the net profit after deducting two-thirds of the entire amount of the federal tax the method will be as follows:

Income before deducting taxes and commission.....	$70,000.00
Deduct two-thirds of preliminary amount of taxes, viz:	
$\frac{2}{3} \times \$26{,}420 =$	17,613.33
Amount on which preliminary commission is to be computed....	$52,386.67
Preliminary commission at 20%.....	10,477.33

Inasmuch as for every $100 commission actually payable the tax will be decreased by $46 and for every $30.666 (or two-thirds of $46) of decrease in the tax, the preliminary commission will be increased by $9.20, it follows that for every $100 commission actually payable the preliminary commission will be increased by $\frac{2}{3}$ x $9.20, or 6.13\frac{1}{3}$. Consequently, the preliminary commission ($10,477.33) is 93.86$\frac{2}{3}$% of the correct amount and the latter amounts to $\frac{\$10{,}477.33}{.9386666} = \$11{,}161.93$. This will leave a taxable income of

$58,838.07 on which the federal tax will be

		Income	*Tax*
Excess-profits credit		$11,000.00	
Portion of income subject to 20% tax.		9,000.00	$ 1,800.00
Portion of income subject to 40% tax.		38,838.07	15,535.23
Total excess-profits tax			$17,335.23
Income tax—10% of:			
Total taxable income.....		$58,838.07	
Less—excess-profits tax.....	$17,335.23		
Exemption	2,000.00	19,335.23	
		$39,502.84	3,950.28
Total federal tax			$21,285.51

Commission will therefore be payable on $70,000, less two thirds of $21,285.51 = $14,190.34, or on $55,809.66, and will, at the rate of 20%, amount to $11,161.93 as above.

The above percentage of 93.86⅔ can be obtained by the formula $x = 100 - \frac{ct}{100}$, in which t is two thirds of the tax rate (46%) or 30⅔%.

In the same manner will the formula 1/5 C — ⅔ T divided by $\frac{100-c}{100}$ lead to a quick determination as to whether the tax rate under the second bracket should be considered or not. The highest amount, leaving the tax within the first bracket, on which the commission would have to be paid would accordingly be

$$\frac{\$20{,}000 - \frac{2}{3} \times \$3{,}420}{.80} = \frac{\$17{,}720}{.80} = \$22{,}150$$

The commission thereon would be $4,430 and the high limit of income before deducting taxes and commission would be $24.430.

After the foregoing demonstrations there should be no difficulty in solving the majority of the problems arising when commissions are to be computed after deducting federal taxes in part or in total. It should now also be plain that their solution can be attained by comparatively simple arithmetical methods which lie within the grasp of average intelligence, and that no higher or lower algebra nor infinite series need enter into it.

PROBLEM IV

Commission payable on a sliding scale after deducting the entire amount of both excess-profits and income taxes

Sometimes the rate of commission payable is on a sliding scale, for instance:

20% on the first	$5,000
15% on the next	5,000
10% on the next	5,000
7½% on the next	3,000
5% on the next	3,000
2% on the balance.	

Also these cases can be solved by the general procedure used in the solution of the preceding problems, viz.:

(a) *Preliminary computation of commission*

Income before deducting taxes and commission		$70,000.00
Commission:		
20% on $ 5,000	$1,000	
15% on $ 5,000	750	
10% on $ 5,000	500	
7½% on $ 3,000	225	
5% on $ 3,000	150	
2% on $49,000	980	
$70,000		$3,605.00
Balance		$66,395.00

(b) *Computation of the tax on the basis of $66,395 taxable income*

		Income	*Tax*
Excess-profits credit		$11,000.00	
Portion of income taxable at 20%		9,000.00	$ 1,800.00
Portion of income taxable at 40%		46,395.00	18,558.00
Preliminary amount of excess-profits tax			$20,358.00
Income tax—10% of:			
Taxable income		$66,395.00	
Less—excess-profits tax	$20,358.00		
Exemption	2,000.00	22,358.00	
		$44,037.00	4,403.70
Preliminary amount of federal tax			$24,761.70

(c) *Calculation of correct amount of taxes and commission*

Inasmuch as for every $100 taxes actually payable, the commission will evidently be $2.00 less, which in turn will decrease the tax by $.92, it follows that the above preliminary amount of taxes is 99.08% of the correct amount, which is therefore $\frac{\$24,761.70}{.9908}$ = $24,991.62. This will leave an amount of $45,008.38. on which commission is payable as follows:

On the first $21,000.00 on the basis of the sliding scale.....	$2,625.00
On the balance of $24,008.38 @ 2%.....	480.17
	$3,105.17

After deducting this commission from the $70,000 earned, the amount of $66,894.83 will represent the taxable income, on which the tax will be:

		Income	*Tax*
Excess-profits credit		$11,000.00	
Portion of income taxable at 20%...		9,000.00	$ 1,800.00
Portion of income taxable at 40%...		46,894.83	18,757.93
Amount of excess-profits tax....			$20,557.93
Income tax—10% of:			
Taxable income.....		$66,894.83	
Less—excess-profits tax.....	$20,557.93		
Exemption	2,000.00	22,557.93	
		$44,336.90	4,433.69
Amount of federal tax (as above)			$24,991.62

General rules and formula:

It will be seen that the formula $x = 100 - \frac{ct}{100}$ can be used to obtain the above percentage of 99.08 if (c) signifies the rate of commission payable on the residuary amount of the profits, viz., 2%.

In case commission is payable on a sliding scale the value of (c) is not always self-evident, nor is the tax rate (t) always readily determined. The problem is to find the limits beyond which the earnings before deducting taxes and commission would become

subject to (a) a higher tax rate and (b) a lower rate of commission.

The first limit (a) may be determined by the method given hereunder.

In the example given herein, an income (after deducting commission) of $20,000 (being 20% of the invested capital of $100,000) is the high limit within which the 20% excess-profits tax rate will govern, and the total federal tax payable on that amount is $3,420. The balance of profit after deducting both taxes and commission is therefore $16,580. On $18,000 the commission would be $2,475, being computed at rates decreasing from 20% to 7½%, and on $21,000 it would be $2,675, computed at rates decreasing from 20% to 5%. The problem to solve is to find the amount which after deducting therefrom commission on the above sliding scale will leave $20,000 subject to the federal tax.

It is evident that the commission will be higher than $2,475, for it has to be computed on an amount exceeding $22,475, inasmuch as, otherwise, the balance subject to the federal tax would become less than $20,000. On the other hand, it will be less than $2,625, for, otherwise, it would have to be computed on an amount higher than $23,625, which would bring the taxable income under the second bracket. It follows, therefore, that the lowest rate of commission to be considered in this instance is 5%, applicable to earnings (after deducting taxes) between $18,000 and $21,000.

If we now call the limit beyond which, under the above commission arrangement, the earnings before deducting taxes and commission will be subject to the excess-profits tax under the second bracket x and the commission actually payable y it will be seen

(1) $x - \$3{,}420 - y = \$16{,}580.$

Deducting from x the amount of $18,000 and from y the commission of $2,475 payable thereon, we obtain the following equation:

(2) $(x - \$3{,}420 - \$18{,}000) - (y - \$2{,}475) = \$16{,}580 - \$18{,}000$ plus $2,475, or

(3) $(x - \$21{,}420) - (y - \$2{,}475) = \$1{,}055.$

Inasmuch as $(y - \$2{,}475)$ represents 5% commission payable on $(x - \$21{,}420)$, we substitute as follows:

(4) $(x - \$21{,}420) - \frac{5}{100}(x - \$21{,}420) = \frac{95}{100}(x - \$21{,}420) = \$1{,}055.$

Multiplying both sides of the equation by $\frac{100}{95}$ we find

(5) $x - \$21{,}420 = \$1{,}110.53$, and
(6) $x = \$22{,}530.53$.
Substituting the value of x in (3) we find
(7) $(\$22{,}530.53 - \$21{,}420) - (y - \$2{,}475) = \$1{,}055$, or
(8) $y = \$22{,}530.53 - \$21{,}420 - \$1{,}055$ plus $\$2{,}475 = \$2{,}530.53$.

Deducting from $22,530.53 the tax of $3,420, there will be a balance of $19,110.53 on which commission is payable as follows:

On the first $18,000, as above	$2,475.00
On the balance of $1,110.53 @ 5%	55.53
Total as above	$2,530.53

Deducting this from $22,530.53 leaves a balance of $20,000, on which taxes are payable.

Therefore, if the earnings, before deducting commission on the above sliding scale, are higher than $22,530.53, they will become subject to taxation under both brackets of the excess-profits tax.

Instead of the above algebraic solution, the following general rule may be followed:

(a)	Take 20% of the invested capital	$20,000
(b)	Compute the tax payable on this amount	3,420
(c)	The balance will represent the net profit after deducting taxes and commission	16,580
(d)	Ascertain by inspection the portion of the earnings subject to the higher rate of commission	18,000
(e)	Ascertain the commission payable thereon at these rates	2,475
(f)	The rate of commission to be considered in subsequent calculations will be the next lower rate	5%
(g)	Ascertain the portion of the income remaining after commission at that lower rate has been deducted there-, from, viz: (a plus e) — (b plus d), or (20,000 plus 2,475) — ($3,420 plus 18,000)	1,055
(h)	The amount will represent (100 — c) % of that portion	95%
(i)	The portion of the income to which the lower rate of commission applies is therefore (g) divided by $\frac{100 - c}{100}$ ($1,055 divided by .95)	1,110.53
(j)	The total amount subject to commission will therefore be (d) plus (i) $18,000 plus $1,110,53	19,110.53
(k)	Add the above amount of the tax (b)	3,420.00
(l)	The sum will represent the limit of profit before deducting either taxes or commission	22,530.53

The limit beyond which the earnings, after deducting taxes, would become subject to a lower commission rate may be ascertained by inspection as already indicated in the particular case discussed in the preceding paragraph. In general, the amount beyond which the earnings will be subject to the higher excess-profits rate ($22,530.53 in the example used herein) should be ascertained first, so that the bracket under which the excess-profits tax is to be considered may be definitely established.

If the given amount of earnings before deducting commission and taxes is, say, $19,000 instead of $70,000, the tax thereon would be $3,140, namely $1,600 for excess-profits and $1,540 for income tax. The commission payable on the remainder of $15,860 would be $2,314.50, as follows:

20% on $5,000	$1,000.00
15% on $5,000	750.00
10% on $5,000	500.00
7½% on $ 860	64.50
$15,860	$2,314.50

It is evident that the taxes actually payable will be less than $3,140 and the commission more than $2,314.50, so that commission will be payable on more than $19,000 — $3,140 = $15,860, and on less than $18,000; the latter because more than $1,000 of taxes will be payable in the given circumstances. Consequently, the lowest rate of commission payable will be 7½% applicable to earnings between $18,000 and $15,000.

If the given amount of earnings before deducting commission and taxes should be, say, $23,000, the tax thereon would be $4,800, viz., $1,800 under the first and $1,200 under the second bracket of the excess-profits tax and $1,800 for the income tax. The commission payable on the remainder of $18,200 would be $2,485, viz., $2,475 on the first $18,000 plus 5%, or $10 on the remaining $200. Evidently the tax actually payable will be less than $4,800 and the commission more than $2,485, so that commission will be payable on more than $23,000 — $4,800, or $18,200, and on less than $21,000; the latter obviously because more than $2,000 of tax will be payable in the given circumstances. The lowest rate of commission payable will therefore be 5%, applicable to the earnings between $21,000 and $18,000.

Admittedly, the above method of ascertaining these rates by inspection is not scientific, but it seems hardly necessary to develop an algebraic method that will determine the exact limit beyond which the residuary earnings will become subject to lower commission rates. A close inspection will usually suffice to define a high and a low limit, and even if the wrong rates should be chosen, this can be rectified with less work than a proper determination of the exact limit will require.

PROBLEM V

Commission payable after deducting taxes and considering the commission itself as a deductible expense

In the hypothetical case used throughout in problems I, II and III the consideration of the commission itself as first deductible from income would be equivalent to a reduction of the given percentage of commission (20%) to the actual (16-2/3%), for evidently 16-2/3% of every $100 of income before deducting commission ($16.66 2/3%) is equivalent to 20% of the remainder 83.33 1/3%). The solution of problem I in the circumstances would be as follows:

(a) *Preliminary computation of the tax*

By first method of solution of problem I	$26,420.00

(b) *Preliminary computation of commission*

Income before deducting commission	$70,000.00
Deduct—preliminary amount of federal tax	26,420.00
Amount on which preliminary commission is to be computed	43,580.00
Preliminary commission of 16-2/3%	7,263.33

(c) *Calculation of correct amount of taxes and commission*

Reasoning on the same lines as in the first method of solution of problem I, it will be evident that:

(c-4) For every $100 of commission actually payable the tax of $26,420 will be reduced by $46 and the commission determined ($7,263.33) increased by 16-2/3% of $46, or $7.66 2/3 (instead of 20% of $46, or $9.20), so that

(c-5) The amount of commission ($7,263.33) obtained in the above preliminary calculation is 92.33-1/3% of the correct amount, which will therefore be

$$\frac{7{,}263.33}{92.33\text{-}1/3} \times 100 = 7{,}866.43, \text{ and}$$

(c-6) The amount of the tax will be

$$\frac{46}{100} \times 7{,}866.43 = 3{,}618.56, \text{ less than } \$26{,}420, \text{ or } \$22{,}801.44.$$

Proof of correctness of above solution:

Out of profits amounting to.....		$70,000.00
there will be paid:		
Taxes	$22,801.44	
Commission	7,866.43	
		30,667.87
Leaving a balance of.....		$39,332.13

20% of which equals the amount of commission.

In the above example the solution hinges upon the transformation of the given percentage (20) into the actual percentage (16-2/3) that can be substituted in the solution given for problem I.

To establish a method by which this actual percentage (X) can be directly determined from the given rate (c), it should be observed

(a) That the given percentage applies to an amount that is X% less than the amount of income before deducting commission; therefore

(b) If the amount of income before deducting commission is 100, the balance left after deducting commission at the normal rate (X) would be 100 — X.

(c) This amount (100 — X) is the amount to which the given rate (c) is to be applied, consequently

(d) The actual commission payable will be:

$$\frac{c}{100}(100 - X)$$

(e) This amount (d) added to the amount of (100 — X) will, of course, equal 100, consequently

(f)

1. $\frac{c}{100}$ (100 — X) plus (100 — X) = 100.
2. c (100 — X) plus 100 (100 — X) = 10,000.
3. 100 c — c X plus 10,000 — 100 X = 10,000.
4. (100 plus c) X = 100 c.
5. $X = \frac{100\,c}{100 \text{ plus } c}$

The rule to follow in determining this actual percentage will therefore be:

To divide one hundred times the actual rate (2000) by one hundred plus the actual rate (120)

The quotient (16 2/3) will be the actual rate of commission to be used in the solution.

It may, therefore, be concluded that the methods used in any of the preceding problems will not be affected in the least by the provision that the commission itself is to be considered as a deductible expense. It will only be necessary to express the commission actually payable in a percentage of the earnings from which only the taxes have been deducted.

Limitations of System*

By F. R. Carnegie Steele

System, a word that has been very much over-worked in recent times, is defined in the dictionaries as "a whole compounded of several parts—a number of things or parts so compounded as to make one complex whole." Antiquarians admit that system in relation to accounting is of most respectable antiquity because it was held in high esteem by the industrial and commercial leaders of ancient times in Babylon, Nineveh and Phœnicia, and some have whimsically alleged that system may have originated with our first ancestors in the garden of Eden, who, in clothing themselves with fig leaves, personally inaugurated what is now termed the "loose-leaf system" that we have quite erroneously regarded as a modern device!

Trend Towards Mechanical Routine

In relation to industrial accounting of the present day, however, as system obtains a greater development, has an increasing emphasis laid upon it and is proclaimed as having wider and wider usefulness, there has arisen in many minds a natural doubt whether the claims made for it are consistent with known conditions of business operation or there is not some confusion between system and industry itself. In certain instances also there has been a mistaken aim to develop system into a semi-automatic machine, and to substitute routine, admirable in many respects, for what is of far greater importance: viz., the individual alertness, diligence and judgment that have always been essential to successful management. It is a curious commentary on the direction which modern management seems to be taking towards the methods of military "manual" training and "staff and line" practice, to observe that modern armies themselves are breaking away from these hard and fast methods and are in fact doing all in their power to foster initiative and resource, not only in the officers but also in the rank and file. Even in the days when the "manual" methods were in full force, it was always recognized that far more than perfectly acquired drill was required to make an effective fighting

* An address delivered at the annual meeting of the Associated Industries of Massachusetts, Boston, 1920.

force. Esprit-de-corps, the enthusiasm and confidence which come from a sense of corporate efficiency and reliance of each on all the others, has always been recognized as one of the most important factors in military success. It is fairly certain that it is also one of the most potent factors in industrial success. The tendency of modern industry has been to place men in such positions that they become as nearly as possible mere machines with an ever-decreasing scope of intelligence and imagination. While up to a point and for a certain period it is perfectly feasible to find practical efficiency in this direction, it has been strongly questioned whether it does not, in the long run, defeat its own object. There are reasons to believe that quite contrary principles are more practical, based on the fostering of such relations with and among the workers that their human faculty is encouraged to the full and enlisted in the service of the common end: namely, economical production.

In the fashionable pursuit of efficiency by "cutting" labor cost there lurk other dangers overlooked or unsuspected by many persons who rejoice in what seems a "practical" avenue to increased profits. One of these is the fact that speeding up labor implies raising the efficiency of every one of the many factors of production simultaneously, unless the benefit is very largely to be wasted. Old-fashioned methods of storekeeping or of shop transport, for example, will not serve under an increased strain of intensive production, and more than one plant has placed itself in the paradoxical situation of finding its deliveries more uncertain and more subject to annoying delay than when the former easier-going production methods prevailed. A still more serious danger, because far more insidious and less likely to be detected at an early stage, is a progressive deterioration in the character and quality of product. Reputations of many years standing may easily be lost or damaged by too headlong a plunge into the seductive waters of "cutting down labor cost" in the development of system. This, too, has its remedy, but in the earlier stages of enthusiasm for new methods, little attention is likely to be paid to warding off a danger that seems almost inappreciable. The confirmation comes later from the salesmen in the field.

System Subordinate to Management

Those who fully recognize the value of system as an aid to executive control also recognize the danger of over-rating its

worth and misapprehending its functions; and they unhesitatingly affirm that system must ever be subordinated to management and can never serve as an excuse for bad management. Business success lies in policies, energy, enthusiasm, resourcefulness and sagacity. System itself is merely a tool with which the mind enhances its effectiveness by using it as a basis of knowledge and as a framework for the executive fabric; and it assumes importance only as intelligence, persistency, experience and energy wield it. It is no magic touchstone with which to change losses into profits or create markets for product, nor will it serve as collateral for an importunate bank creditor or as a panacea for labor troubles. System alone neither manufactures nor sells; and in the highest departments of management, where decisions are made, when reasons for and against seem evenly balanced, where men's qualifications are judged, where plans are made in advance and policies are devised, all that system can do is to make for a full knowledge of the facts which bear on the questions to be determined, so as to free the mind from many anxious questions and leave it clearer for the consideration of the final problems of management, the solution of which is apart from system. On the other hand, it must not be assumed that the planning of accounting and production systems is in itself management or a part of management. Management requires wholly different qualifications from those belonging to the expert, and successful management rests on personality—but obviously a personality distinct from an individual's capacity to lay out a system of accounting control. Accounting and production experts have a viewpoint different from that of the executive; and they have a wider basis of comparison for the facts in their field; and they possess daily familiarity with problems and difficulties that may seem unique and peculiar to a manager endeavoring to do his own systematizing in the intervals of his regular work.

Systems That Become Obsolete

In almost every plant the system is constantly tending to get out of touch with existing conditions. Men come and go, methods of doing business are modified little by little, new wants become apparent, while former wants cease to be felt. There is no help for this, for no system can grow as a living plant grows, and the "self-perpetuating" system is an obvious absurdity. A system is the expression of a given set of relations today, and if they

change ever so little (and in any live business they are always changing), it will be a less perfect expression of the relations existing tomorrow. It is not infrequently found, on expert examination of large businesses, that a whole history of waste and loss can be read from the mere existence of forms, blanks and books out of use, which represent praiseworthy attempts of different individuals at different times to meet the shortcomings of a system that was getting out of touch with actual conditions. The loss of cash in printers' bills is the least part of such a result. What strikes the imagination most is the futile groping in the dark, the energy diverted from the proper conduct of the business and the loose grip on the vital facts of the daily work that this long series of experimental systematizing represented. Nevertheless, many concerns are operating today with patch-work systems in which all the parts have long since lost the well-defined and balanced relations that they possessed when first installed. This may arise from several causes. Special returns perhaps may be called for temporarily, but once started, they are compiled "until forbidden," and no one ever thinks of countermanding them. Or returns may come into existence and continue to live their useless lives because a new man, or a man with a new point of view, wants to know something not disclosed by the existing way of serving up statistics, so he institutes certain new reports. Afterwards he leaves or is promoted, and while his successor has no use for those figures, because either he has not the same view-point or does not know the purpose of such reports, yet, from a want of moral courage or from sheer inertia, he refrains from interfering with what appears to be a well-grounded custom, and so the useless expense of compilation continues. The remedy for this very common disease of organizations is after all a simple one and a positive economy, not only in indirect results but in actual operating expense. It is, frankly to recognize that systems are constantly growing out of date and that they require regular auditing and adjustment at frequent intervals.

Misplaced Clerical Work

Operations and profits may be analyzed, gains and losses traced to their causes, new facilities of operation may be created and new means of control established, yet there commonly arises from the very beginning the question of the cost of increased clerical

help or other work of an auxiliary character, and one is forced to consider, long and carefully, how the largest results can be accomplished with the least relative expense. The desire to avoid a multiplicity of clerks is a perfectly sound instinct, but self-deception on this point is the easiest thing in the world. In every plant there is a certain amount of clerical work that must be performed, and satisfactorily performed, by some one. It must take up some one's time and be paid for, whether such time is accounted for separately on the payroll or not; and, undoubtedly, the most costly way of doing such unavoidable clerical work is by imposing it on foremen, departmental heads and other executive officers, to be carried out in the intervals of their responsible duties. When a plant is undergoing reorganization, the executive will sometimes observe—with groans—that more clerks are being employed than before. This may only mean, however, that such work has been taken away from highly paid men and allotted to special persons whose training enables them to carry it out, not only more quickly and more efficiently, but also at a real saving. In such circumstances what the executive has failed to see is that in all probability there is no more clerical work than before, but that it is being done by cheap men, instead of being a source of worry and discomfort to more highly paid men. It may be that one or more clerks are manifestly additional, but what is not visible is the irregular work of many worried people in various departments, needing to know continually about materials for different purposes, inquiring and searching in various quarters, and then perhaps failing to get accurate information. This waste of time and energy has been saved, though the saving cannot be illustrated in figures; but it obviously has a money value. The strain imposed on foremen and department heads by old-fashioned methods of organization, especially in shops where mechanical equipment is up to date and there is an intense atmosphere of productive activity, does not end merely with the actual loss of their time in fruitless searches and useless inquiries, for the worth of whatever remaining time they may have available for their real functions is greatly impaired, because no man can attend properly to responsible duties when strain and worry overshadow him. There should be, of course, proportion in all of these matters. A large clerical staff makes for the smooth running of an organization, but like every other element of pro-

duction it has its economic limits . An organizer of judgment will not multiply staff positions beyond the bare need of the situation, yet the amount of any increase must not be measured by what existed before, for almost certainly (if the system is an old one) the hidden clerical work—work in the wrong place—was a generator of inefficiency.

It is worthy of note, however, that the marked increase in the volume and complexity of modern business transactions has been accompanied by the development of ingenious devices through which the clerical labor of dealing with large masses of figures may be lessened. One class of these inventions is of course the work of accountants themselves, whereby the form and arrangement of books and accounting records is such that modern bookkeeping is largely in summarized form, giving totals under various headings, without the labor of detailed ledger postings. Apart, however, from new developments in bookkeeping, there are three classes of inventions of great utility in lessening clerical expense. These are, first, manifolding devices for both handwritten and typewritten records; second, filing devices, applied especially to factory records; and, third, calculating and tabulating machines. The first and second of these are fairly familiar matters and are simple to investigate and understand, while the third (the use of calculating and tabulating machines) is a subject worthy of more extensive study and utilization in system work than it has yet been accorded. Some machines are used to perform ordinary calculations more quickly and with less fatigue and less liability to error than when reliance is placed on "head work" hour after hour. Others make computations, in a few seconds and by purely mechanical means, that could only be performed after tedious and laborious figuring. Others again combine calculating with typewriting mechanism in various ways so that the combined results are entirely different from those of one kind of "head work." There are also statistical machines which analyze, combine and total, with remarkable speed and certainty, any required number of permutations and groupings of a number of original facts about any class of transaction.

Need for Correlation of Statistics

Although the relative importance of system as a link in the chain of executive control has often been exaggerated, it cannot

be gainsaid that many industrial concerns at the present time are seriously handicapped through the inadequacy or inaccuracy of their accounts, reports and manufacturing records. It was recently stated by the federal trade commission, as the result of an investigation of business conditions, that there were 32,000 failures in a single year in the United States and that out of a total of 260,000 business corporations less than one-fourth were profit-making enterprises, while more than three-fourths were either losing money or just making both ends meet. Still more recently there has been published a report of a detailed survey of plants engaged in a certain industry in New York, doing a gross business of $80,000,000 per annum, wherein it is stated that the percentage of profit on cost in that industry averaged only two per cent. Upon further investigation it was found that those plants which were equipped with an adequate cost system had earned eleven and one-half per cent, while the rest, which were not so equipped but did a gross business of nearly $70,000,000, showed a profit averaging only one per cent.

It should be borne in mind that the salient feature of the business process of manufacturing is a series of changes, and one object of accounting is to make the financial result of these changes known at frequent periods. Have they resulted in profit in this article and loss in that? Have they resulted in production greater than sales or sales larger than production? Is the demand for this article or that falling off? Is demand falling off or increasing uniformly, or more in one territory than in others? Is cost rising or falling? Is selling expense rising or falling? Is burden rising or falling? Is more capital locked up in the business or less? All these questions and many others like them arise in the mind of the alert executive, but prompt and verified answers are not always obtainable from his factory statistics. Such statistics are generally known as cost accounts, though the costing of product is only one and sometimes not even the most important of their functions.

While the form of balance-sheets and of statements of earnings does not vary greatly, factory statistics on the other hand are individual to each industry and practically to each plant. Too frequently they are ill adapted to their purpose, largely because of a failure to recognize the relative values of various forms of statistics and the need for their systematic correlation. For example, in many organizations elaborate analytical records are

laboriously compiled concerning sales, segregated so as to show currently, in quantity and in value for each group or grade of product, the distribution among cities, territories, salesmen, etc., and the fluctuations thereof from period to period; yet, in marked contrast with such refinement of analysis no reliable statistics regarding cost, for comparison with sales prices, are usually obtainable. In similar fashion a great deal of clerical work is often conscientiously undertaken in checking and exhaustively dissecting labor tickets, payrolls, stores, requisitions, etc., which is never carried to its logical conclusion by bringing those important expenditures under accounting control.

Under such conditions inventory values are determined only through an annual or semi-annual stock-taking, which is usually a nerve-racking undertaking. The work is carried on under pressure, and the arduous calculations leading to the final result are hurried forward so that the position of the business may be known at the earliest date. Too often a large element—the work in progress in the factory—is valued by main force, that is, by some one roughly estimating the value of the labor and materials in it. With perhaps hundreds of jobs the cumulative error arising from this procedure can be and often has been a very serious matter.

Modern accounting methods do not merely eliminate this annual or semi-annual flurry, but by the method of "continuous" stock-taking there can be known at any time exactly what values lie in the shops and what remain in stores or on the warehouse floor. Moreover, as these values are known currently there is little difficulty in preparing an interim monthly profit and loss account and balance-sheet. This is the only sure test of how the business is progressing. As the result of these developments in industrial accounting there are few businesses that have any excuse for failing to provide themselves with monthly operating statements which show exactly how every department of the business stands. While there are people who hesitate to take this step, few after having provided themselves with such a powerful instrument of control have ever abandoned it in order to go back to the half-yearly or yearly main-force system of stock-taking. In considering the importance of adequately correlated statistics it should be understood that factory accounts may be termed a "system" only when their several divisions mutually support and

supplement each other and when, without gaps and without repetitions, they furnish the means of constantly observing the processes of making or losing money. Therefore, the most elaborate command of details is fruitless without scientifically balanced grouping and analysis, showing results in sharp outline with their trends and tendencies. A system should be a unity, and no statistics should ever be accepted on which action is to be taken that are not interlocked with and vouched for by balancing with the financial books.

The Outlook

Today the trend towards uniform standards for accounting statistics and reports is unmistakable. Federal and state departments are steadily increasing their demands for elaborate information concerning operating costs, financial resources, etc.; radical changes in import tariffs, based on cost, are believed to be imminent, and there is a widespread demand for uniformity in financial records in order to avoid the confiscatory taxation that has commonly resulted from defective accounting. The same trend can be discerned in reviewing other factors affecting industrial and financial conditions of the present day. Over-expansion of credit, stringency of the money market, demoralization of foreign exchanges, advancing wages and industrial unrest have brought about a marked industrial reaction from the abnormal conditions that recently over-taxed the productive capacity of many of our important industries. Economists allege that the whole country is suffering from financial inflation. Undeniably, manufacturers are carrying enormous stocks of commodities produced or purchased at abnormal cost under war-price conditions, the gradual liquidation of which must proceed in an orderly fashion if an interval of acute industrial depression is to be avoided. Imports are increasing now more rapidly than exports and this tendency is having a very disturbing effect upon the prices of domestic goods, since the depreciation of foreign exchange makes it possible to purchase many things abroad to better advantage than at home. Consequently precision in detail and accurate methods of production, with correspondingly modern methods of accounting and of exhibiting results graphically and at a glance, have now become essential to executive control in all lines of American industry.

Some Problems of Foreign Exchange*

By H. G. P. Deans

The subject of foreign exchange has been engrossing the time and attention of bankers, economists and business men throughout the world for the past two years. In fact, since the signing of the armistice in November, 1918, the foreign exchange situation has become one of the most difficult and serious problems that the business men not only of America but of the whole world have had to face. Business men, bankers and economists have been searching for two years for some cure for the disordered condition of the exchanges and they have not been able to find it. There is no cure but time and return to normal conditions.

The foreign exchange banker of today has to be a different man from the foreign exchange banker of ten years ago. Prior to that time the foreign exchange business of the whole country was conducted almost exclusively by and through a round half dozen private banking houses in the city of New York, one or two of them being partly English and the remainder very much German. American banks had never taken seriously the question of the profits to be made in foreign exchange and had been content to transact their business and to see the business of the country transacted through these private banking institutions.

As time passed on the business of the country grew, and word began to get abroad in banking circles that there were large profits to be made in the foreign exchange business—profits which had been overlooked by national and state banks. As a result, it became the custom, or the fashion, if you please, for large banks throughout the country, in the larger cities, at any rate, to organize foreign departments and to open direct accounts with the principal foreign countries of the world. That practice has grown now to such an extent that most of the large banks in New York, Boston, Philadelphia, Cleveland, Chicago, St. Louis and many cities west of us have foreign exchange departments in which you

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can buy and sell on practically any banking center throughout the world.

I am going to avoid statistics as much as possible. Personally, I have always had suspicion of statistics. Years ago before I came to this country I used to be a very assiduous reader of the *Illustrated London News,* with which many of you are no doubt familiar. In those days James Payn, the novelist, used to conduct a more or less witty column in that paper, and I remember his writing on one occasion something which sank down into my mind so that I have never forgotten it. He said in answer to a correspondent: "There are three degrees or classes of lies; there are lies, damned lies and statistics."

Therefore, in trying to describe to you some of the problems and difficulties of the foreign exchange business, I am going to keep away as far as I can from statistics, which are sometimes made to mean anything or nothing. I am also going to avoid speaking at too great length.

Let me say to you first of all that in its simplest form the functioning of foreign exchange covers all the operations connected with the buying and selling of foreign debts—in other words, with the buying and selling of substitutes for metallic money.

Foreign exchange is a commodity, just as gold or grain or wool or corn or wheat is, and it is controlled and governed by the same laws which govern any other commodity; that is to say, it is subject to the laws of supply and demand. If there are more sellers of debts than buyers of debts, of course the price of exchange goes down, that is, the price of debts goes down. If, however, there are more buyers of debts than sellers of debts, the price of exchange, other things being equal, goes up.

In his *Theory of Banking,* McLeod, who is a well known authority on the subject, in comparing the foreign exchange with wheat, says among other things:

"If money is scarce and wheat very abundant, the price of wheat must fall; but if money is very abundant the price of wheat will rise. The price of debts or foreign exchange obeys the same rule. If money becomes very scarce, the price of debts must fall. If specie becomes abundant, then the price of debts

will rise. The price of debts then must follow the same great laws of nature that the price of wheat does."

At the present time the foreign exchanges are in a deplorable condition. They are depreciated to an extent that none of us ever expected to see. There are of course many reasons why they are depreciated, but chief among these reasons is supply and demand.

As a banker, engaged in the business, I can conservatively say that there are ninety sellers of exchange for every buyer, if I except in that statement the large numbers of people who come into our banks every day to buy small personal remittances as presents to relatives or for the discharge of trifling obligations on the other side. There is today, however, no commercial buying of foreign exchange. Before the war, we owed Europe three or four billion dollars. Since that time we have paid off the three or four billion dollars we owed, and we have lent ten billion dollars in addition. The result is that there is practically no demand for remittances to Europe at the present time. We owe nothing there; we have no interest due, no obligations to pay. It is all the other way. That is one of the chief reasons why exchanges are in their present condition.

Another and almost as important a reason is the fact that the United States today is practically the only country in the world that is still on a gold basis. By that I mean that other countries, while many of them have plenty of gold, are no longer exporting gold, and consequently an American creditor can no longer command gold from his foreign debtor.

Most of the European countries—and many of the others for that matter, although the European countries are the principal offenders—have so increased and distended their paper issues that today they have become unwieldy and no longer bear any relation to the gold reserves of the issuing countries. As a matter of fact, the paper issues of such countries as Germany and Austria bear absolutely no relation to the gold of those countries.

Before the war it was universally accepted that paper currency should have behind it a substantial gold or silver reserve, the purpose of such reserve being to enable each country to redeem its notes promptly on demand. But unfortunately, as the war ran on, many countries and particularly the enemy countries, adopted the plan of financing the war through the issue of paper

money. Germany issued paper money as fast as her printing presses could turn it out, asserting, whether she believed it or not, that the indemnities she would subsequently collect from the allies would redeem that excess paper.

The result has been, however, not only with Germany but with France, Austria and Italy, as well as most of the smaller European countries, that their paper issues today are unredeemable. They have not enough gold to redeem them and are not likely to have for many a long day to come. Consequently in terms of United States currency, this country still being on a gold basis, the paper issues of these various foreign countries are much depreciated because at present unconvertible.

Britain and the United States are on a better basis. The expansion in our country is trifling compared to that which has taken place in other countries; and this, of course, is one of the reasons why today the American dollar is selling at so high a premium over the currencies of other countries.

Another reason why the foreign exchanges have depreciated is that five years of destructive warfare have so depleted all European stocks of raw and manufactured materials that many countries have little they can now export in exchange for those things which, even at the present ruinous rates of exchange, they must have.

During the war and for some time after it our government continued to make loans to Europe out of the ten billion dollars which was voted by congress for that purpose. When that ten billion dollar allocation was exhausted, the loans stopped; and with the stopping of the loans the exchanges began to fall.

These in a general way are the reasons which are at the bottom of the present depreciated state of the exchanges as a whole. I might perhaps add, however, that in one or two instances there are also special reasons why the exchanges are as low as they are today. For example, the French franc is adversely affected by the extent to which Russia is indebted to France. Russia owes France a large sum of money. The prospect of collecting it at the present time is far from good. The French need the money badly, worse than they ever did before, but the likelihood of being able to get it for some time is remote.

That is also true in a lesser degree of Great Britain, because the Russian debt to Great Britain is by no means inconsiderable;

but it has not had as great an influence on British finances, which are more stable and extensive than French finances. In addition, however, to the Russian debt with which England has to contend, she has other troubles. There are the disturbances in Ireland, for example. There are the troubles in India, the unrest in Mesopotamia and in other parts of the empire which may or may not be serious, but nevertheless are expensive for the British taxpayer and are cumulative in their effect in delaying or deferring the return to normal of the British pound sterling.

Another important factor has been the breaking up, as a result of the peace conference, into various units of such countries as Austria and parts of Russia and dividing them into smaller nations. It is a question whether this plan of self-determination for small peoples is altogether a good thing. As a result of it, some countries have become economically crippled. One large industrial country, Austria, for instance, has been split up into three or four small units, all of which are feeling their new nationalism. Their manufactures have become disordered, their finances have been upset; their position is as yet and will be for some time to come by no means clear, particularly in regard to the proportion of the debts of the old countries for which they are to be responsible; and their exchanges have fallen so low that trading is almost impossible.

The Polish mark can be bought now in Chicago for 25 cents a hundred. You can buy the German mark today, which before the war sold for 24 cents, for $1.25 a hundred. You can buy the French franc, which before the war was valued at 20 cents, for 5¾ cents. The Austrian crown you can buy at 30 cents a hundred; the Italian lira for three cents, and so on down the line. Mind you, we buy the franc from the Italian and the lira from the Frenchman, which shows that the opinion they have of one another's currency is not by any means flattering.

At present we are in the midst of our export season. Under normal conditions exchange falls in the autumn. This year it fell, but it was so low when it began to fall that the price at which foreign exchanges are selling today on the Chicago market is something of a tragedy.

Imagine, if you can, the state of mind, to say nothing of the state of pocketbook, of a German who has to find seventy-five marks with which to buy one dollar's worth of cotton, when for-

merly he had to find only four marks. And do not forget that Germany and Austria were the two countries which before the war were the largest and perhaps the only consumers on a great scale of our low-grade cotton. We have a lot of low-grade cotton in this country today, and our problem now is to dispose of it. If we cannot find some means of shipping it to Austria and Germany, the price of cotton in this country is going lower instead of higher.

As I said, however, the export season is at its height, and Europe is in sore straits for means of paying for what she desires to import from us and what we are equally desirous of exporting to her, namely, our surplus. Money rates in this country are unusually high, so that even allowing for the fairly liberal rates of interest which European banks are paying on deposits, our own demand for capital in this country is so keen that American banks have not been able to carry in Europe the foreign balances which they were in the habit of carrying.

The result is that there is a constant pressure to sell on the foreign exchange market. I may say further that not only is that pressure exerted because of the depreciation in foreign money, but also because of the fear always lurking in the back of every exchange dealer's mind that exchange may fall lower.

Foreign exchange before the war did not give us much concern, because during that period money rates were easy, business conditions generally were normal and goods moved freely. If England owed us something we got gold for it. If France owed us a balance we called for gold and got it. Per contra, if we owed England and France, we shipped gold to them. Under these conditions, therefore, the fluctuations in foreign exchange did not exceed perhaps 1½ or 2 per cent per annum.

Prior to the war, money rates were fairly easy and foreign exchange rates were kept within bounds by what were known as the gold points. In other words, as soon as it became cheaper to ship or to import gold, gold was shipped or gold was imported, and that checked the upward or downward movement in the exchanges. Those days, however, are over.

History is repeating itself. The other night, while sitting at home, I was reading and refreshing my memory with Green's

History of England. Writing of the conditions in England about 1816, immediately after the Napoleonic wars, Green says:

"Peace left the country feverish and much weighed down by heavy taxation and enormous debts. The markets were glutted with unsalable goods, and mills and manufactories were brought to a standstill. Much of the prosperity of English agriculture was fictitious and rested on the high price of corn brought about by the war."

It seems to me that with some little modification, that description would almost fit our country today.

The foreign exchanges are, of course, the direct reflectors of the disordered state of the world's affairs, and time will be required to restore them.

Until trading and commerce readjust themselves, as they must and will some day, we may expect great and violent fluctuations. We have them every week or two, sometimes we have them every day. We had a bad break this week. Sharp movements take place most unexpectedly and for reasons that cannot always be discerned or explained.

I do not want to go into too much detail, but last Saturday, only six days ago, you could have bought all the sterling exchange you wanted in Chicago for $3.33 a pound. Yesterday afternoon you could get $3.51 a pound for the same sterling. There is an advance of 18 cents. To what it is attributable, nobody yet knows. The news from abroad is no more favorable than before. Whether there has been a slowing down of exports temporarily or not, I do not know, but these unexpected movements take place and we find out a week or a month or two months after they occur what caused them; but at the time of their occurrence they are often hard to explain. There are so many cross currents in the foreign exchange market at the present time that it presents a situation which is exceedingly difficult to grasp. For example, we may not know it until afterwards, but France may be a seller of Belgian exchange, while London is selling marks, or vice versa. Therefore we cannot understand at the time what brings about these remarkable fluctuations, which occur without any warning.

The changes brought about by the war are only now beginning to make themselves thoroughly understood to many of us, and some of them are not and will not be completely understood until the system of governmental control of commodities and prices

throughout the world has been completely ended. That situation is rapidly coming about. The foreign exchanges are now free and regulating themselves according to the laws of supply and demand. Over some few other commodities, however, it is understood that a partial measure of control is yet being exercised.

To go back a little, shortly after the declaration of war, in August, 1914, most of the foreign exchanges rose rapidly. The pound sterling, which had a normal quotation or par value of $4.8666, rose to $7.50. The French franc with a par value of 19.3 cents advanced, if my memory is not at fault, to something like 23 cents. The German mark, with a par value of 23.8 cents, advanced to about 27 or 28 cents, and so on throughout the list. The reason for that was because those countries had been suddenly plunged into war and they were trying to draw home all the capital they had abroad, and they were rapidly selling all the securities of other countries, and American securities in particular, that they had, and were also selling in the American market any of the foreign securities they owned which the American market would or could absorb.

At that time there was a great hue and cry throughout the country as the result of representations made to us by England and France, that we ought to ship gold; that the pound was selling at 40 per cent premium in America and no gold was released, and that gold ought to be forthcoming. Many of the merchants and business men in this country were indignant with the government and the bankers because it was thought they were slow in agreeing to the exportation of gold at that period. But wiser counsels prevailed. There were better hands at the helm than some people thought at that time; and as a result of one or two conferences held in Washington, it was decided to form what was known as the one-hundred-million-dollar gold pool.

This is all ancient history now, but they did form the one-hundred-million-dollar gold pool, and that hundred million in gold was held in reserve to meet any emergency. The country could use that gold if necessary; but it was pointed out at the time by those best qualified to speak that the exchange of any country engaged in war must sooner or later go to a discount, and consequently it would be only a short time before the English, French, Italian and Belgian exchange would fall to a discount when

reckoned in terms of the American dollar. Therefore, it was felt that it would be a great mistake on the part of this country and a needless expense to ship a large amount of gold abroad to protect the exchange rate when because of these reasons the exchange rate must necessarily adjust itself within a short time and render gold exports unnecessary. The wisdom of that course was demonstrated within a few months when the foreign exchanges, which had been so much against us, began to break and to turn in our favor.

Nothing of a very decided character took place until August, 1915, about a year after the outbreak of war, when, like a bolt from the blue, sterling exchange broke from about $4.70 a pound to about $4.25 a pound. Sterling at $4.25 a pound looked cheap, although it was difficult to say at that time whether it was really cheap or merely low. Those who bought around that figure made money, for shortly afterwards sterling went up. The rise, however, came about because of arrangements which were entered into shortly after that time between England and the banking firm of J. P. Morgan & Co. of New York acting as fiscal agents for the British government in particular and the allies in general in this country.

As a result of that arrangement Morgan & Co. agreed (the British government, of course, finding the money for the purpose) to take up the daily slack in exchange. The practical working of the arrangement was smooth and satisfactory. Sterling exchange quickly came back to 4.76 a pound, or about 2 per cent below par, and was maintained in that neighborhood until November, 1918, the month of the armistice.

The French franc, which had fallen low, was also brought back to $5.45, or about 6 per cent discount. The Italian lira was brought back from a price of about 10 to the dollar to a price of about 6½ to the dollar, and maintained by the allies artificially during the whole period of the war.

About the end of November, 1918, however, government control or artificial support of the exchanges was withdrawn without any warning to the market as a whole. Many people were running along with a feeling of false security. Others thought, if the allies were able to maintain exchange at these prices during the war, that as soon as the war was over many of these exchanges

would go to par. As a matter of fact, as soon as the drawbar was pulled out, foreign exchange began to drop.

Perhaps the most remarkable outcome of the war has been the complete transformation of the United States from a substantial debtor country into the chief creditor country of the world. In many respects it is a position that is far from being as comfortable as that which we occupied when we owed something. As I said a little while ago, at the outbreak of the war we owed Europe four billion dollars. We have paid that off, our government has lent ten billions to the allies for the prosecution of the war, and, in addition to that, there is overhanging the market a commercial floating indebtedness of between three billion and four billion dollars, so that Europe at the present time is indebted to us to the extent of about fourteen billion dollars.

While it is true that we have become a creditor nation, it is also true that we have become a creditor nation more by accident than by design. How long we may be able to maintain our position as the world's chief creditor nation will depend very much upon our own thrift and upon our own ability.

Prior to the war and for a great many years before the war, England, France and Germany were the world's principal creditors; but these countries had become creditor nations because of the thrift and industry of their people and by reason of the fact that their people were in the habit of investing their savings abroad.

As the world's creditor nation, I am afraid we shall have to revise some of our ideas and try better to realize that our new position as well as bringing us great wealth and prestige also brings with it great responsibility and great obligations. For years our own country was dependent for its upbuilding upon loans obtained from Europe. Without the money which we got on what now seems to have been extremely reasonable terms from the old world, we would never have been what we are today.

There is little likelihood that Europe can ever pay off what she owes, except in goods and in services—and we must realize that. Lately we have heard people who ought to know better, I believe, asking whether this government or that government is likely to pay its indebtedness. Governments have rarely paid their indebtedness in the past, and the holders of their bonds never

thought of asking for the payment of those bonds. All they were concerned with was the prompt payment of the interest, and people generally who were supposed to be well off or rich were envied by their friends if it was known that they had their fortunes invested in government bonds.

Today, however, we find any number of people looking askance at government bonds and asking if they will be paid. Many of them will never be paid. On many of them the interest may not be paid unless we revise our views and realize that we must do something in the way of commercial credits for the rehabilitation of Europe. We must give our old world debtors time in which to pay for the raw materials we would export to them and of which they are sorely in need. We must give them time to manufacture these raw materials into the finished product and sell it, before we demand payment of them.

To maintain American business on an even keel, and to prevent as far as possible in this country these alternating periods of feverish business activity and acute depression, something must be done to promote and make possible a reasonable continuance of our foreign trade. To assist in bringing about this condition we must be prepared to play a generous part in the matter of loans. We must be prepared to extend credit to deserving buyers of raw material.

Credits for the sale of our surplus products are in a different category from credits for the prosecution of a destructive and disastrous war and should not be regarded as having any relation, for one is a credit for the purpose of construction and the other is a credit for the purpose of destruction.

The principal nations of Europe, bear in mind, have actually more gold on hand today than they had in 1913—not more gold, by any means, in proportion to their liabilities; not more gold in proportion to their paper issues; but more gold actually in hand than they had in 1913. The high premium on the American dollar in most foreign countries is seriously injuring our export trade.

I have spoken to you chiefly of export trade. Import trade is as essential to us, to our welfare and to our happiness as the export trade. Everybody in this country, however, when he talks about foreign trade usually talks and thinks of export trade. Now it is axiomatic that to buy we must sell, and to sell we must buy.

The transaction must not be one-sided; it must be mutual. Europe and South America need us—but we need Europe and South America. Overproduction is already beginning to make itself felt here, and if our export trade is seriously cut down, industrial difficulties must spread in this country.

Last advices from Chili, which we received in the bank the day before yesterday, quote the American dollar there as having gone to a 50 per cent premium. In other words, it is now selling for 7½ pesos against a normal value of 5 pesos. That means if a merchant in Valparaiso, Chili, today owes a Chicago firm $100,000, it costs him $150,000 to pay his obligation. It might ruin many people if they were compelled to remit at this time. Because of these conditions brought about by the collapse in commodity prices moratoria in Brazil and the Argentine are a possibility. They have already gone into effect in half a dozen other countries which could not pay under these conditions.

The Brazilian situation is extremely grave because of the condition of the coffee and rubber markets. In 1913 crude rubber sold for $3.50 a pound. Today the producers of crude rubber in Brazil are having hard work getting 20 cents a pound. While none of us has noticed any particular decline in the price of coffee at the corner grocery—and the corner grocer is the last man to know that the price of coffee has declined—the wholesaler will tell you that the coffee for which he paid 18 cents a pound is worth only 6 or 7 cents today in New York and perhaps 3½ to 5 cents, according to the grade, in Santos. As a large part of the Brazilian exports consists of rubber from Para and coffee from Santos and Rio, you can readily understand the situation that exists in that country.

Almost the same situation exists in the Argentine, where the principal exports are corn and hides. There is almost a complete suspension in the wool, hide and leather trade. It is almost impossible to buy or sell. I have as a client in Chicago a large firm engaged in the wool business. Let me tell you this instance to illustrate the peculiar mental attitude or psychology in the wool trade at present. Wool is quoted here and in Boston, which is the principal market, as unsalable—and it is unsalable. If you have any wool you will find that you cannot sell it, because nobody will make a bid for it. This Chicago client, however, conceived the

idea of buying some cheap wool. He had read that the Montana sheep-growers and clippers had had a splendid clip this year. Therefore he came to see me about a month ago with two of his buyers and I equipped him with a letter of credit for $100,000 and sent them off to Montana to buy wool. These men spent thirty days in Montana; they offered good American gold dollars to every farmer they met, but they could not buy a pound of wool. They would ask the farmer why, and the farmer would reply: "You don't offer enough." My client said that his answer to that was: "What is this wool quoted at in Boston today?" Now Boston, as I told you a moment ago, is the only real wool market in this country. The farmer would say, "Six cents." "Well, I will give you eight cents a pound in Montana for your wool." The buyer and seller could not get together. There was a practical impasse, a suspension in the wool trade. Prices have declined so low that the sellers think if they sell now they are giving the commodity away; and while some of the buyers would buy, many of them are afraid the price will go even lower.

The situation in South America has lately grown very acute. Last spring a loan of $50,000,000, which had been made to the Argentine government, fell due in New York. The Argentine government wanted to renew the loan, but the American bankers thought they wanted to have their money back again. The result was that the Argentine government paid off the United States, but in order to pay us they went to London and borrowed the money there. Our attitude which compelled them to do that was, in my opinion, short sighted. Fifty million dollars, considering the figures in which we have been dealing for the last year or two, is a mere bagatelle for the United States, but it is a considerable sum for the Argentine.

We have been working hard in this country—or at least we want it thought that we have been working hard—to wean Central and South America from trading and banking with Europe. A transaction of this kind is not the way to do it. By it we are helping to throw South America back into European hands, and today, notwithstanding the condition of the European money markets as a whole, South America can get a longer and better credit there than she can get in the United States.

Our crops, nature having been kind and bountiful to us this year, are too big for home consumption. Europe is still hungry.

Our low-grade cotton is literally overflowing the warehouses of the south. It largely exceeds our home demand, while the spindles of many European countries are idle for lack of it.

Experience seems to teach that most men throughout the world are honest. In the past Europe thought American business men were honest, otherwise Europeans would not have lent as freely as they did for the development of this country. America would not be what it is today had it not been for our ability to borrow in the old world. They trusted us in those hard-up days of ours, and we must trust them not only for their sakes but for our own. This is our problem, if we ever expect to get payment of the interest on the money which Europe already owes us. This is our problem if we value our own financial and social security. This is our problem if we would keep our own factories going and our own labor busy. An idle, unfed and discontented Europe is a menace to the security of the United States.

There are one or two figures which I want to read to you that are interesting and have some bearing on what I have just been saying. I believe they are fairly accurate.

It may not be generally known that with only six per cent of the world's population and only seven per cent of the land surface of the world the United States produces:

20 per cent of the world's gold.
25 per cent of the world's wheat.
40 per cent of the world's iron and steel.
40 per cent of the world's lead.
40 per cent of the world's silver.
50 per cent of the world's zinc.
52 per cent of the world's coal.
60 per cent of the world's aluminum.
60 per cent of the world's copper.
60 per cent of the world's cotton.
66 per cent of the world's oil.
75 per cent of the world's corn.
85 per cent of the world's automobiles.

In addition we also refine 80 per cent of the copper and operate 40 per cent of the railroad trackage of the world.

Believing these figures to be substantially correct, can we expect to get on without an international market? It is impossible.

The domestic demand for funds continues strong, and the need for extending help to Europe and to South America is pressing. However, it is generally true that money is forthcoming at some sort of a rate, and the time has apparently come when rates that a few years ago would have seemed very high may no longer be regarded so.

It is well to remember that money, while high, is only relatively so. Money as a commodity, during a period when other commodities soared in price, advanced little in its cost to the consumer. The prices of most other commodities have advanced from 100 per cent to 350 per cent, but money costs have increased on an average of only 25 per cent—and that in the face of a great increase in the cost of rendering banking service. The increase in the interest rates to the borrower has been less than the increase in the cost of any other element entering into production or distribution.

Foreign trade and foreign exchange, which go hand in hand, require immediate help. The situation is bad, but not to my mind hopeless. It will work out in time. We have all got to go on working and living and working for a living; but things will work out much sooner and much better if not allowed to drift entirely by themselves.

Some means must be found, and should be found speedily, for funding into a long term loan the ten billion dollars which the allied countries owe to our government. All of you have no doubt read from time to time suggestions in the newspapers and elsewhere to the effect that we should remit that debt or cancel it. In other words, that we should call it off. I am not at all sure that that would be the right thing to do. As a matter of fact, I dissent from that opinion. I know from talking with the leading bankers of Great Britain that they would not listen for a moment to any cancellation. The French have not declared themselves positively on the subject, but I do not believe they can afford to consent to it, and I believe the same thing is probably true of the Italians and the Belgians. There is a vast difference between compromising or canceling a country's internal debts and failing promptly and properly to deal with a country's external debts. What England, France, Belgium or any other foreign country may eventually do with its own internal debts is an absolutely different question from

that involved in this ten billion dollar loan. They may compromise with their own people, or they may even go to the extent of repudiation; but to do anything that would suggest repudiation or unwillingness to pay their external debts would blacklist them for all time in other countries.

If the weight of that ten billion dollar debt could be taken off the foreign exchange market; and if in addition to that some means could be found—and I think the means could be found easily among the banking and commercial interests of this country—for the funding into a five-year loan, let us say, of the floating debt of three or four billion dollars, so that these two debts which hang over the foreign exchange situation could be taken out of the way, I believe that within less than one year we would be back to something approaching normal conditions.

There is no short cut from the financial and economic troubles with which the world is today beset. Bankers, lawyers, doctors, economists and business men have been looking for some cure, some panacea for the financial ills which have surrounded us for the last year. There is nothing, however, but the old-fashioned way out—namely, hard work. In other words, the cure is not to be found in this nostrum nor in that, but only in the gradual and probably painful convalescence of the entire world through hard work, industry, thrift.

A return to normal conditions need not be expected for some time. There are too many reasons why the world cannot get back at once to normal.

Russia, for example, a great wheat-producing and consuming country, is not functioning at present. It has vanished from among us as though it had never been, and its place as a consumer and producer may not be filled for many a day to come. Russia will recover in time. Bolshevism will wear itself out, for it is in principle economically unsound.

Germany, one of the greatest industrial countries in the world, and a large consumer of Brazil's rubber and coffee, of America's cotton and grain, is temporarily out of the market, and it will be some time before she is able to resume her place.

There seems to my mind little doubt that Germany is emerging from the state of financial and economic chaos in which the end of the war found her. The Germans are a resourceful people. The one great mistake they made was in bringing on the late war. They

were conquering the world by peaceful penetration but they threw away their chances when they engaged in the world war. Commercially their country was growing more rapidly than any other. The Germans have a natural genius for developing new fields. Before the war commercial Russia was German Russia. So thoroughly had the German business man penetrated into that country that nine-tenths of Russian industries were directly under German control. The two countries, Germany and Russia, lie side by side, and it is natural in view of all that has gone before that they should trade together again in the future as the United States and Canada, being close neighbors, trade together today.

None of us can say what will happen in the future—prophecy is always a dangerous thing—but it need not surprise any of us if within a few years Germany again gains control of commercial Russia. This, of course, is what France fears; but it is open to question whether the world has not more to fear from a Russia and a Germany in their present condition than it would have to fear from a Germanized Russia, prosperous, industrious and contented.

The German people have to overflow somewhere, and the logical outlet for them is into Russia. Before the war Germany was England's greatest customer and England was Germany's greatest customer. Until trade relations are re-established on something approaching a normal scale between these two great countries, the world's trade will continue to be dislocated.

England, the country whose affairs today are perhaps more nearly normal than the affairs of any other country, barring our own, is suffering acutely from many of the disabilities from which we suffer, including an acute lack of working capital. England is not at present able to discharge her former function as the world's principal banker. No longer can we or other foreign countries repair to the London market for cheap loans, for the British government itself is borrowing on a six per cent basis, and the English banks are paying five to five and one-half per cent on foreign deposits.

The prosperity of England, which is an industrial country, depends upon her ability to produce and manufacture more cheaply than can the countries to which she sells. England's prosperity

therefore hinges almost completely upon her ability to keep down the cost of production.

Many countries throughout the world are facing changes and far-reaching readjustments in their economic and financial life, and my opinion is that depression and perhaps hard times, not only in Europe but in this country, are not very far away. Deflation is under way and deflation is always painful.

Customs tariffs will no doubt be revised both here and abroad. At any rate, they will be up for serious consideration and discussion, and the problem before the American people will be to decide whether we should permit foreign goods to come in as they have been coming in, and in that way enable the impoverished countries of Europe in some measure to offset their obligations to us, or we should go further and by reducing our tariffs on certain imported articles thereby stimulate the flow of European merchandise to this country.

The war, fortunately, is over—although some of our rulers at Washington do not as yet seem to be aware of it. Deflation and contraction have set in. The dollar will buy a bigger loaf of bread and get a better day's work done in the future than it has in the past. The time has come when the fiddler must be paid and there is only one way in which we can pay. That is by practising strict economy, working hard and saving our money.

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EDITORIAL

Publication Notice

Arrangements are being made at the suggestion of the Ronald Press Company for the termination of the contract between the American Institute of Accountants and that company relative to the publication of The Journal of Accountancy. For nine years past the business affairs of this magazine have been managed by the Ronald Press Company, although the magazine has been the property of the American Association of Public Accountants and later the American Institute of Accountants during the entire life of the contract.

The American Institute of Accountants expects, beginning with the April, 1921, issue, to undertake the production of the magazine, with the exception of the mechanical processes, and attention is drawn to the matter now in order that readers may have due notice of the proposed change.

All correspondence relative to advertising, subscriptions, etc., subsequent to the issue of March, 1921, should be addressed to 135 Cedar street, New York.

The ground floor of the institute's building at that address will be used for publication purposes and is admirably suited therefor.

Classification of Profits on Investments

The question involved in the case of *Brewster vs. Walsh* in which a decision was recently handed down by the Connecticut district court is one of far-reaching importance and great inter-

est to accountants. That question is whether profits realized on investments are capital or income.

We shall not attempt to deal with the legal aspect of the question, but in the business and accounting world such profits would, we think, ordinarily be regarded as income. The average man also doubtless thinks that he can properly spend such profits without laying himself open to the charge of dissipating his capital: indeed he is likely to regard them as a peculiarly appropriate basis for expenditures on luxuries as being what is sometimes called "velvet."

There is a group of economists whose views are in accord with those of the district court that such profits are not income. This group includes those economists who solve the problem of living within one's income for everyone by holding that whatever is spent is ipso facto income. We are very far from saying that this concept is useless or uninteresting, but we feel that it is so far at variance with the commercial concept of income that the economists in question would be well advised to adopt for it some name other than income. Fortunately there is a larger body of economists whose concept of income does include such profits as were involved in this case and is more closely in harmony with the accounting and commercial interpretation of the phrase.

We should be sorry to see the meaning of the word "income" restricted by the courts either on legalistic grounds or on the basis of an interesting but unpractical economic concept in such a way as to limit the ability of congress to tax anything that is ordinarily regarded by the average citizen as being income. If a taxpayer by choosing investments, the fruits of which are to be expected in the form of the return of a larger sum at the end of a period of years rather than in annual income, can thereby escape the income tax altogether in respect of such investments, the opportunities to the rich taxpayer now offered by tax-exempt securities will be immensely enlarged and dissatisfaction with the tax will correspondingly increase.

In our view it is desirable that the broadest possible interpretation should be given to the term income, leaving the determination of the forms of income to be taxed to be considered by the legislative bodies.

Governmental Waste

No one but a eulogist would ever describe the American as a frugal soul. The things we do we usually do with enthusiasm and abandon. We spend like drunken sailors and we save at times with a savage intensity, but we are not frugal as a nation, and most of us are wasteful as individuals.

But the most lavish of us must regard with a feeling of amazement the "thrift" campaign which is being waged by the United States government in an effort to induce the people of the country to conserve resources. Perhaps the office of this magazine is exceptionally favored by the government, but if not and if the inundation of so-called "thrift" literature is felt equally by other offices, it seems to be time to say to some one in Washington, "Physician, heal thyself." The reckless waste of stationery, clerical labor, mail service and what not indicated by the mass of paper which finds its way almost daily to the waste baskets in this office is enough to disgust anyone who stops long enough to consider the matter.

We have said that the matter is cause for amazement, but that assertion is not strictly accurate. It might be better to say that the extravagance of the government in this one department would amaze anyone not acquainted with the way things are done and not done throughout the entire range of governmental agencies.

For the past few years especially the value of the dollar—even the shrunken value of the dollar in trade—has been lost to sight in Washington and the departments have scattered broadcast with never a thought of the harvest. What is being done by the "thrift" advocates is only a symptom of a prevalent disease. It is noticeable chiefly because it persists after some of the other symptoms are abating under the treatment of public condemnation.

These things are of vital interest to every citizen who is a recipient of income however small. They are of peculiar interest in the days which intervene between today and March 15th when the majority of taxpayers will make returns. Direct taxation has its faults—some of us are more impressed by its faults than its merits—but this at least may be said of it: it brings home to the taxpayer as nothing else can do the importance of watching the national expenditure.

This year and for many years to come the American people will be called to bear a share of the expense incurred by reckless and worse public officers during the war and in the piping times of our almost peace. In all human probability the time will not soon come when official waste shall be unknown. We cannot expect perfection this side the millenium. Always there will be a portion of our tax burden imposed because of incompetence or wilful wrong-doing. But the recent orgy surpasses reason and its end should be hastened in every possible way—even in such comparatively insignificant trifles as the "thrift" campaign.

By the way, it would be of interest to learn something of the actual expense incurred in this campaign and of the results achieved. Some folk will tell us that it is difficult to trace the effects of an advertising effort, and therefore the results of the "thrift" movement must ever remain veiled. Suppose we admit so much for the sake of harmony. Suppose we admit that the effort may have achieved something worth while—we don't really admit that, however. What is needed now is a definite cessation of waste—let the past be what it may.

Saving by Sound Accounting

The Chartered Accountant Students' Society of London had as its guests at a recent annual dinner several prominent men of affairs. There was, of course, all the customary laudation of the society and the people represented in its membership. No professional or trade banquet in any part of the world can quite escape the manner of the pharisee's prayer. But making due allowance for pride of self, society and profession, there were some things said which should be remembered. For example, Walter Runciman, formerly the secretary of the board of trade —a position which is as though the duties of the secretaries of commerce, labor, agriculture and the interior were rolled in one—replying to a toast, said that the representatives of the other learned professions had profound respect for chartered accountants. Their services to the government departments had saved the country scores of millions of pounds. Translating that sum into dollars we find that accountants saved the British government hundreds of millions during the war.

The application of the statement is obvious. What was done in England should have been done here. Of course, it is well known that accountants here did save enormous sums for the government. The amount is not to be estimated with any assurance of an approach to accuracy. But what was saved is as nothing to what might have been saved if competent men had been permitted to advise and if their advice had been accepted.

Speaking entirely aside from the party affiliations of anyone associated with this magazine, we doubt if one of our readers has failed to feel a little thrill of hope that the new year will bring about a departure from some of the wastefulness of the war and subsequent years. A change in administration generally leads to a housecleaning. Therefore, it may be that some of the things which most afflict us economically will have their ending ere long.

What the accountant or other skilled advisor might have saved the country in the past is not now the question. What we ask is that all the ability and all the knowledge available be utilized in the days to come. They will be needed.

American Institute of Accountants

Regional Meeting, Chicago, November 19, 1920

A regional meeting of the American Institute of Accountants was held at the Congress hotel, Chicago, Friday, November 19, 1920.

The following officers were elected to serve during the meeting:

Chairman, Edward E. Gore, Chicago; secretary, C. R. Whitworth, Chicago.

About three hundred accountants were in attendance, of whom approximately fifty per cent were members of the institute.

The states represented were Illinois, Indiana, Iowa, Kentucky, Michigan, Missouri, Ohio and Wisconsin.

An invitation to hold the next meeting in Detroit was extended by F. A. Tilton.

The invitation was unanimously accepted.

It was resolved that the next meeting should be held April 8, 1921, the Friday immediately preceding the semi-annual meeting of the council of the institute.

The chairman introduced Carl H. Nau, president of the American Institute of Accountants who suggested the appointment of an organization committee.

Upon motion it was resolved that such a committee be appointed by the chair. The chair appointed the following:

Chairman, Herbert M. Temple, St. Paul; Carl H. Nau, Cleveland; F. A. Tilton, Detroit; A. H. Hammarstrom, Clinton, Iowa; Charles G. Harris, Louisville.

It was announced that the accountants from outside Chicago were invited to be the guests of the Chicago accountants at luncheon.

A paper was presented by F. A. Tilton on the subject *Treatment in Accounts of Losses Arising Through Fluctuations of Inventory Value.*

Discussion was opened by H. A. Finney.

At 12 o'clock the meeting adjourned for luncheon.

Upon resumption of business at 2 o'clock the following resolutions which had been prepared by the committee on organization were unanimously adopted:

Resolved, that for the purpose of regional meetings, the chairman of each meeting shall appoint the chairman for the local committee of arrangements for the succeeding meeting.

The chairman so selected shall appoint a local committee of not less than five nor more than nine members, whose sole duty shall be that of preparing for the next regional meeting; and

Be it further resolved, that the chairman of the regional meeting shall appoint a member of the institute in each state to confer as an advisory

board, whose duty it shall be to co-operate with the local committee in securing interest in and attendance at the meeting.

Carl H. Nau delivered an address entitled *The American Institute of Accountants.*

President Nau was followed by A. P. Richardson, secretary of the American Institute, who invited all eligible accountants to file application for admission to the institute and explained the method of examination and election.

W. P. Hilton, a vice-president of the institute, spoke briefly on the advantages of membership in the institute and the desirability of observing the highest ethical standards.

J. D. M. Crockett of Kansas City addressed the meeting on the subject *Should Legislation be Enacted, granting to Professional Accountants "Personal Privilege" in respect to their Dealings with their Clients?*

The address was followed by discussion led by F. A. Ross of Chicago.

Upon motion it was resolved that the meeting suggest to the American Institute of Accountants, in case an action should arise on the question of privileged communications in regard to an accountant, that the case should be supported by the institute and carried to the courts in order to obtain a decision.

It was resolved that the resolution be transmitted to the secretary of the institute.

D. Himmelblau of Chicago addressed the meeting on the subject *Undisclosed Liabilities.*

The address was followed by discussion led by Roy Hall of Chicago.

H. M. Temple addressed the meeting on the subject *What Action should be taken by the Profession in relation to the Future Federal Revenue Laws?*

Discussion was opened by R. J. Beaman of Cincinnati.

It was resolved that the meeting recommend to the institute the creation of a committee with the definite duty of considering new legislation relative to taxation.

A general discussion followed on the subject of income-tax returns.

The chair announced the following appointments to the regional committee:

Illinois.....George W. Rossetter
Indiana.....George W. Buist
Iowa.....A. H. Hammarstrom
Kentucky.....James S. Escott
Michigan.....F. A. Tilton
Minnesota.....Herbert M. Temple
Missouri.....J. D. M. Crockett
Ohio.....R. J. Beaman
Wisconsin.....C. I. Smith

A resolution of thanks to the accountants in Illinois who had organized the meeting was adopted by a rising vote.

The meeting adjourned at 5:30.

An informal banquet was held at the Congress hotel at 6:30 P. M. The toastmaster was Edward E. Gore and the speakers were Carl H. Nau, president of the American Institute of Accountants; H. G. P. Deans, vice-president of the Merchants Loan & Trust Company, Chicago, who chose for his subject *Some Problems of Foreign Exchange,* and Keene H. Addington, member of the Illinois bar, whose subject was *Invested Capital from a Legal Standpoint as applied to Excess and War Profits Taxation.*

Wisconsin Society of Certified Public Accountants

At a meeting of the Wisconsin Society of Certified Public Accountants, held December 10, a revised form of constitution and by-laws was adopted. Officers for the current fiscal year are: President, Carl Penner; vice-president, S. E. Barry; secretary and treasurer, H. D. Sampson.

Marwick, Mitchell & Co. announce the opening of an office in Brussels, Belgium, at 11 rue de Namur, under the management of Leon C. Beukers, and an office in Marseilles, France, at 2 rue Paradis, place de la Bourse, under the management of L. Docquier and P. Woolford.

Arthur Young & Co. announce the opening of branch offices at 192 Market street, Newark, New Jersey, under the management of M. C. Ruggaber and in the Pacific Finance building, Los Angeles, California, under the management of George E. Dell.

Arthur Young & Co. announce the admission to partnership of Charles R. Trobridge and J. Gordon Steele and the retirement of A. J. Baxter as of January 1, 1921.

W. P. Hilton & Co. announce the opening of a branch office at 910 Harris Trust building, Chicago, Illinois, under the management of George Mahon.

James O. Sully & Co. announce the removal of their offices to suite 311, 260 California street, San Francisco, California.

Marwick, Mitchell & Co. announce the removal of their London office to British Columbia House, 1 Regent street, S. W.

Charles H. Steel announces the opening of an office at 320 Stephen Girard building, Philadelphia.

Marwick, Mitchell & Co. announce the admission to partnership of Peter S. Barton and John P. Cash.

Nau, Rusk & Swearingen announce the removal of their Cleveland office to 3334 Prospect avenue.

Income-tax Department

EDITED BY STEPHEN G. RUSK

No treasury decisions that had reference to income tax were made during the past month.

There have been many decisions by the board of review, by the solicitor of the department, and by the office, from which have been gleaned the more important that bear upon phases of the law that are met with considerable frequency by accountants.

These opinions and decisions, given below, relate to such questions as income from exchange of property, sale of personal property on the instalment plan, and to such deductions as depreciation of intangible property, valuation of inventory, charitable contributions, life insurance premiums, etc.

As the time is at hand when many returns must be made, the matters discussed in the following paragraphs become vitally interesting.

Section 202, article 1563: exchanges of property.
(Also section 213 (a), article 52.) A. R. K. 289

The committee has had under consideration the appeal of A from the action of the unit in proposing an additional assessment of income tax for the years 1916 and 1817.

The additional taxes grow out of the reorganization of the M Company, or rather the formation of the M Company of Delaware, and the exchange of its stock for stock of the M. Company of New Jersey. This exchange was made by giving three shares of the preferred stock of the New Jersey company, not redeemable and carrying dividends at the rate of 7 per cent, for four shares of preferred stock of the Delaware corporation, redeemable at 110 per cent of par and carrying dividends of 6 per cent, and five shares of the common stock of the new company for one share of stock in the old company.

Two questions arise in connection with the pending appeal: one, whether any profit was made, and the other as to the year when the profit, if any, was made. Upon the first question the office has uniformly taken the position that stocks in different companies are essentially different properties, and that a taxable profit is realized if the value of the stock received in exchange is in excess of the cost of the stock so exchanged.

The committee understands that the office has taken a similar stand with respect to other stockholders of the M Company.

The committee therefore recommends that the ruling of the unit, holding the stockholders of the New Jersey company liable for any profit made by exchange of their stock for new stock in the Delaware corporation, be sustained.

Upon the other question it appears that A exchanged a portion of her stock in 1916, but did not take advantage of the offer of exchange as to the rest until 1917. Clearly, although the right to make an exchange had been given her in 1916, no profit accrued to her until she actually made the exchange, and the action of the unit in holding the profit made by exchange subsequent to January 1, 1917, as subject to tax under the rates provided for that year is correct and should be approved.

Section 214 (a) 1, article 101: business expenses. O. D. 711

Office decision 396 (bulletin 6-20), holding that premiums paid on a life insurance policy required as collateral for a loan are deductible as a business expense, is to be strictly construed. The policy must have been taken out for the sole purpose of using it as security for the loan. A taxpayer is not permitted to deduct the premiums paid on a policy taken out prior to the negotiations for a loan and later assigned to the lender as security for such loan. The subsequent assignment of the policy to the lender is merely incidental to the purpose for which the policy was secured, and no additional expense is incurred or loss sustained by virtue of its temporary use as collateral. The increase in the cash surrender value of a policy accruing during the period it is used as collateral is not to be considered in computing the net income of the person who pays the premium.

A corporation which takes out a policy on the life of one of its officers for the purpose of using the policy as collateral may not deduct the premiums paid thereon.

Section 214 (a) 11, article 251: charitable contributions. O. D. 712

Contributions or gifts made within the taxable year to corporations organized and operated exclusively for charitable purposes, which are deductible for income tax purposes from the gross income of individual taxpayers under section 214 (a) 11, revenue act of 1918, have been construed to mean gifts of money or property. The value of services rendered to charitable institutions may not be allowed as a deduction under the aforesaid section.

Section 202, article 1567: exchange of stock for other stock of no greater par value. Sol. Op. 72

INCOME TAX: SECTION 202 (b), REVENUE ACT OF 1918

Article 1567, regulations 45, as amended by T. D. 2870 and further amended by T. D. 2924, applied

The question is raised as to the application of article 1567, regulations 45, as amended by T. D. 2870 and T. D. 2924 in the case of the issue of no-par-value stock under an act of the general assembly of the state of Ohio, approved May 29, 1919.

Section 202 (b) of the revenue act of 1918 provides in part:

* * * when in connection with the reorganization, merger, or consolidation of a corporation a person receives in place of stock or securities owned by him new stock or securities of no greater aggregate par or face value, no gain or loss shall be deemed to occur from the exchange, and the new stock or securities received shall be treated as taking the place of the stock securities, or property exchanged.

Article 1567 of regulations 45 as amended by T. D. 2870 provides in part:

So-called "no-par-value stock" issued under a statute or statutes, which require the corporation to fix in a certificate or on its books of account or otherwise an amount of capital or an amount of stock issued which may not be impaired by the distribution of dividends, will for the purpose of this section be deemed to have a par value representing an aliquot part of such amount, proper account being taken of any preferred stock issued with a preference as to principal. * * *

Although this article was further amended by T. D. 2924 the portion quoted remains unchanged.

The specific question presented is whether, if two existing corporations are consolidated under the act of the general assembly of the state of Ohio, approved May 29, 1919, by the exchange of no-par-value shares of the new

corporation for the entire assets and obligations of each of the existing corporations, and they each in turn are liquidated, the no-par-value stock of the consolidated corporation will be held under article 1567 of regulations 45, as amended, to have a par value for federal taxation purposes represented by the aliquot part of the total book value of the properties of the corporations which are consolidated and exchanged for the no-par-value shares in view of the provisions of the Ohio statute limiting the declaration of dividends to surplus profits arising from the business of the new corporation.

An act of the general assembly of the state of Ohio, approved May 29, 1919, provides:

SECTION 1. Upon the formation of any corporation for profit under the laws of this state, * * * the articles of incorporation required by law may provide for the issuance of the shares of common stock of such corporations, without any nominal or par value, by stating in such articles:

(a) The number of shares that may be issued by the corporation, * * *

(b) The amount of capital with which the corporation will carry on business, which amount shall be not less than the amount of the preferred capital, if any, authorized to be issued, and in addition thereto as common capital a sum equivalent to five dollars, or to multiple of five dollars, for each share of common stock to be issued; but in no event shall the amount of common capital be less than five hundred dollars. * * *

Such statements in the articles of incorporation shall be in lieu of any statements prescribed by law as to the amount of the capital stock, and the number of shares into which the same shall be divided, and the par value of such shares.

Each share of such common stock without nominal or par value shall be equal to every other share of such stock, subject to the preferences given to the preferred stock, if any, authorized to be issued. * * *

SECTION 2. No corporation formed pursuant to this act shall begin to carry on business or shall incur any debts until the amount of common capital stock stated in its articles of incorporation shall have been fully paid to the corporation in money or in property taken at its actual value; * * *

No such corporation shall declare or pay any dividend out of capital or which shall reduce the amount of its common capital below the amount stated in the articles of incorporation as the amount of such capital with which the corporation will carry on business. * * *

SECTION 3. For the purpose of any rule of law or of any statutory provision (other than as provided for in this act), relating to the amount of the capital stock of a corporation or the amount or par value of its common shares, the aggregate amount of the capital stock of any such corporation formed or reorganized pursuant to this act shall be deemed to be the aggregate amount, preferred and common, respectively, stated in the articles of incorporation or any amendment thereof, * * * as the amount of capital with which the corporation will carry on business; and for the same purpose the amount or par value of each share of common stock shall be deemed to be an aliquot part of the aggregate common capital so stated in such articles of incorporation or any amendment thereof, or certificates of reorganization. * * *

Section 3 of the act above quoted practically parallels the portion of article 1567, as amended, which is here involved. A careful reading of the portions of the act quoted leaves no room for argument that upon the facts presented the shares of no-par-value stock issued by the consolidated corporation will be deemed to have, for the purposes of federal taxation, a par value representing an aliquot part of the amount of capital with which the corporation is to carry on business as stated in its articles of incorporation.

Under the provision of section 2, quoted, the net value of the assets of the corporations which are consolidated must be not less than the amount of capital so stated, but it is not required to be in excess of that amount. If, in fact, the net value of the assets exceed the amount of capital specified in the articles of incorporation, it is clear that such excess will constitute paid-in surplus out of which dividends might be paid.

It is accordingly so held.

Section 213 (a), article 42: sale of personal property on installment plan. O. D. 715

In the case of sales of personal property where substantial initial payments are made (more than 25 per cent of sale price), article 42 of regulations 45 provides that obligations of the purchasers are to be regarded as the equivalent of cash. It is recognized that in many sales of this type the obligations of purchasers, even though represented by notes or other paper in negotiable form, cannot be discounted or otherwise converted into cash without material loss because of lack of credit on the part of the buyer and the nature of the property covered by such contracts. The obligations of the purchasers in those cases can scarcely be considered the equivalent of cash in any sense, and it is not contemplated by the regulations that such obligations are required to be so treated. On the other hand, the profits from such sales may be computed in accordance with the rule prescribed in cases of the sale or contract for sale of personal property on the installment plan, provided, of course, the taxpayer chooses to do so as a matter of consistent practice, and provided a statement is attached to the taxpayer's return disclosing the fact and showing conclusively that the obligations of the purchasers are not the equivalent of cash.

Section 213 (b), article 80: liberty bond exemption after December 31, 1918. O. D. 718

In case a taxpayer converts his liberty bonds or victory notes originally subscribed for from one denomination into another, or from registered bonds into coupon bonds, or vice versa, he may be considered the original subscriber to the new bonds or notes for the purpose of the collateral exemptions, if the new bonds or notes are of the same issue as the ones originally subscribed for.

Section 214 (a) 8, article 163: depreciation of intangible property. O. D. 721

The following schedule of the terms of patents and trade-marks in various countries is published for the information of taxpayers:

Country	Term of patent	Term of trade-mark
Great Britain..	16 years. Extended from 14 years by act of Parliament, 1919.....	14 years renewable.
France.....	5, 10 or 15 years from filing of application	15 years renewable.
Germany.....	15 years from next day after filing.	10 years renewable.
Russia.....	15 years	1 to 10.
Canada.....	18 years	General unlimited; special 25 years renewable.
Australia.....	14 years	14 years renewable.
Austria.....	15 years	10 years renewable.
Switzerland....	10 years for chemical process..... 15 years from filing.....	20 years renewable.
Sweden.....	15 years from filing.....	10 years renewable.
Denmark.....	15 years	10 years renewable.
United States..	17 years	20 years renewable.

The duration of patent rights in Great Britain was extended from 14 to 16 years in 1919 (see 9, and 9 and 10, Geo. V, c. 80, Chitty, *Annual Statutes,* 1919, p. 423). No corresponding change seems to have been made with respect to trade-marks. Important patent legislation is now pending in France which will radically change the existing law if passed.

The only actual change in duration of patents and trade-marks since 1909 in the countries named seems to have been in Great Britain, as indicated above.

Section 214 (a) 8, article 167: depreciation of patent or copyright. (Also section 326, article 843.) A. R. M. 95

REVENUE ACT OF 1917

The committee has had under consideration the appeal of the M Company, from the action of the income-tax unit in disallowing for the taxable year 1917, an item of 50*x* dollars covering depreciation on certain patents.

In January, 1902, the M Company, then a newly organized corporation, acquired ownership of eight patents issuing therefor to A, the patentee, 900*x* dollars of stock of the corporation. This amount was subsequently increased 2*x* dollars by expenses of acquisition. The patents so acquired, except one, issued in 1900, had expired prior to January 1, 1917, but as of March 1, 1913, all but one were in effect. Fifteen new patents had, however, been added to the company's patents between date of incorporation and March 1, 1913. These additional patents were not capitalized. No depreciation was taken by the taxpayer on the patents which were capitalized, until the year 1917, when 1/17 of the book value was charged to expenses, notwithstanding the fact that all except one of them had expired prior to January 1, 1917.

The taxpayer relies upon articles 167 and 843 of regulations 45, and upon treasury decision 2929, amending article 163 of regulations 45, in support of his action.

It is assumed the actual value at date of acquisition of the patents by the issuance of stock has been determined by the income-tax unit, since this question is not at issue before the committee.

The case then comes clearly under the provisions of article 174, paragraph 552, and article 167, paragraph 494, regulations 33, revised, governing the collection of the income tax imposed by the revenue act of 1917.

Article 174, paragraph 552, provides:

An allowable deduction for any given year for return of capital invested in patents at the time of issue, will be an amount equal to 1/17 of the actual cost in cash or its equivalent of such patents.

This paragraph of article 174 was subsequently amended by advisory tax board recommendation 59, September 9, 1919, to provide as follows:

Depreciation of patents acquired prior to March 1, 1913, should be taken on the basis of their fair market value as of that date, if affirmative and satisfactory evidence of such value is offered.

Article 167, paragraph 494, provides:

Good will represents the value attached to a business over and above the value of the physical property, and is such an intangible asset that it is not subject to wear and tear and no claim for depreciation in connection therewith can be allowed. Any loss resulting from or on account of investment of good will can be determined only when the property or business to which the good will attaches is sold or disposed of, in which case the profit or loss will be determined upon the basis of the value of the assets, including good will, if acquired prior to March 1, 1913, or their cost if acquired subsequent to that date.

The basis for deduction authorized under the provisions of article 174 is the return of capital on an asset, the use of which in the trade or business

is definitely limited in duration. The taxpayer did not elect, during the life of the patents acquired in 1902, to provide for this return of capital. Had he made this provision his surplus for invested capital purposes under the revenue act would have been correspondingly reduced.

He, therefore, cannot now claim in a high taxable year, after the expiration of the life of the patents, an amount equivalent to 1/17 of the cost, thereby securing the benefit not only of a reduction in his taxable income for the year 1917, but the advantage of the investment, which in value is subject only to the definite limitations prescribed by the act and the regulations.

The committee therefore sustains the action of the income-tax unit in disallowing the item of 50*x* dollars claimed by the taxpayer in the taxable year 1917, as a deduction based on 1/17 of the cost of said patents.

Section 301, article 711: Imposition of tax. (Also section 214 (a) 4, 5, 6, article 141.) A. R. M. 96

REVENUE ACT OF 1917

Held, that an individual who is engaged in more than one business, the income from which is taxable under different provisions of the law and regulations, may not deduct losses sustained in the one from gains or profits made in the conduct and operation of the other for the purpose of computing the excess profits tax for 1917.

The committee is in receipt of a memorandum from the income-tax unit in which the statement is made that the unit has consistently held that indivual taxpayers who suffered losses in 1917 from transactions which, had they resulted in a profit, would have been taxable under the provisions of section 201 of the revenue act of 1917, can not deduct such losses from income derived from a business in which there is no invested capital or not more than a nominal capital as provided in section 209 of the statute.

It is pointed out in the memorandum that cases arise in which losses are sustained in a business requiring the use of capital, and that such business may be closely related to the character of the business from which the individual taxpayer receives a salary or commissions which are taxable at the 8 per cent rate under the provisions of section 209. It is suggested that the ruling may be correct, but that it works a great hardship in many cases. Advice is requested as to whether the consistent action of the unit disallowing such losses for the purposes of the excess profits tax is correct.

It appears that A is a member of a partnership dealing on the Y exchange and that he receives for his services from such partnership a salary. In addition to the salary received for services rendered, it appears that A on his own account is engaged in the same general class of business as that of the partnership. A loss was sustained in such business and his representative strongly urges that since such loss was incurred in a business closely related to that in which the partnership was engaged he should be entitled to deduct such losses from the salary received, for the purpose of determining the income subject to tax at the 8 per cent rate under the provisions of section 209.

Section 200 of the revenue act of 1917 provides that when used in this title "the terms 'trade' and 'business' include professions and occupations."

Article 8 of regulations 41 reads as follows:

In the case of an individual, the terms "trade," "business," and "trade or business" comprehend all his activities for gain, profit, or livelihood, entered into with sufficient frequency, or occupying such portion of his time or attention as to constitute a vocation, including occupations and professions. When such activities constitute a vocation they shall be construed to be a trade or business whether continuously carried on during the taxable year

or not, and all the income arising therefrom shall be included in his return for excess profits tax.

In the following cases the gain or income is not subject to excess profits tax, and the capital from which such gain or income is derived shall not be included in "invested capital": (a) Gains or profits from transactions entered into for profit, but which are isolated, incidental, or so infrequent as not to constitute an occupation, and (b) the income from property arising merely from its ownership, including interest, rent, and similar income from investments except in those cases in which the management of such investments really constitutes a trade or business.

Article 14 of regulations 41, as amended by treasury decision 3017, reads in part as follows:

A. Trades or businesses having no invested capital or not more than a nominal capital, including, in the case of individuals, occupations in which they receive salaries, wages, fees, or other compensations; and

B. Trades or businesses having more than a nominal capital.

In the case of a corporation or partnership, all the trades and businesses in which it is engaged shall be treated as a single trade or business (as provided in section 201), and all its income from whatever source derived shall be deemed to be received from such trade or business, and if in such trade or business, considered as a unit, such corporation or partnership employs more than a nominal capital (whether invested, borrowed, or of any other character), it will not be entitled to be assessed under the provisions of section 209.

Inasmuch as all the trades or businesses in which a corporation or partnership is engaged are treated as one, a corporation or a partnership shall be allowed either the deduction provided for in section 203 or the deduction provided for in section 209 (depending on the character of its trade or business), but not both.

In the case of an individual *each trade or business in which he is engaged, the net income from which is subject to the excess-profits tax, shall be classified as provided in this article.* Each trade or business in class A shall be taxed as provided in article 15, and each trade or business in class B shall be taxed as provided in article 16. If an individual is engaged in two or more trades or businesses, in one of which he employs more than a nominal capital (whether invested, borrowed, or of any other character), he will be assessed under the provisions of section 209 only as to those trades or businesses in which he employs no invested capital or not more than a nominal capital; and as to all others, he will be assessed under section 201.

If an individual has more than one business with invested capital, they will all be regarded as one, and (under the provisions of section 203) only one deduction will be allowed; if he has more than one business with not more than a nominal capital, they will be regarded as one, and (under the provisions of section 209) only one deduction will be allowed. If he has both kinds of businesses, he will be regarded as having two businesses, and there will be two deductions, but not more than two. (See articles 35 and 36, regulations 41.)

Article 35 of regulations 41 deals with the determination of net income of individuals where there is no invested capital or not more than a nominal capital, and provides as follows:

The net income which is derived from a trade or business having no invested capital or not more than a nominal capital, including salaries, wages, fees, or other compensations (constituting net income of class A as defined in article 14) shall be determined for the taxable year by adding the total net income from all such sources (or in the case of a nonresident alien in-

dividual the total net income from all such sources within the United States) as reported for income tax purposes for the same year.

The inquiry here presented for consideration is whether an individual taxpayer engaged in two businesses: (1) Requiring invested capital and (2) requiring no invested capital or not more than a nominal capital, may deduct losses sustained in either from profits derived from the other. It has been consistently held that an individual may be engaged in more than one business, and even though such businesses may be closely related the losses in one may not be deducted from the profits of the other unless both businesses are taxable under the same provisions of the law.

In the instant case submitted with request for advice, it appears that A was engaged in two businesses during 1917; that these businesses may have been closely related and that from one he received a salary and from the other, in which he was trading on his own account with capital, he sustained a considerable loss. If he had shown a profit from both businesses there can be no question but that the income-tax unit would not have permitted the consolidation of such profits for the purpose of computing the tax, for the reason that the income derived from one business was clearly taxable under the provisions of section 209, and had there been income from the other business it would have clearly been taxable under the provisions of section 201. This being true, there is no sound argument why the losses sustained in business by A trading on his own account with capital may be deducted from the salary received for services rendered to a partnership of which he was a member.

In a prior committee recommendation it was held that a member of a banking firm was subject to excess-profits taxes on certain commissions received in 1917 from the sale of certain coal properties which were owned by a corporation of which the member of the firm owned a considerable part of the capital stock. It was there held that the commissions grew out of a transaction which was made possible through his banking connections and through his ownership of stock in the coal company. Had the amount received been profits on the sale of something which the individual member of the banking firm owned, such profits would not have been subject to the excess-profits tax under the provisions of section 209 but would have been subject to such tax under the provisions of section 201, provided the member of the banking firm devoted sufficient time and attention to the deal to constitute a trade or business.

Under the foregoing quoted provisions of the regulations the committee finds that A is engaged in two businesses: (1) As a member of a partnership from which he received a salary and (2) trading on the Y exchange on his own account with capital out of which the losses in question arose. If under the law and regulations the income from both businesses could not be combined for the purpose of computing excess-profits tax, it is thought that since there was a loss in one of the businesses in which the taxpayer was engaged, such loss may not properly be deducted from income clearly taxable under the provisions of a separate and distinct section of the statute.

Students' Department

EDITED BY H. A. FINNEY

The examination questions of the American Institute of Accountants are now used by thirty-two state C. P. A. boards as well as by the institute. Readers of THE JOURNAL OF ACCOUNTANCY who were candidates in the November examinations conducted by these boards or by the institute are, therefore, already familiar with the problems. These solutions, it should be understood, merely represent the opinion of the editor of this department and are not official solutions by the institute.

EXAMINATION IN ACCOUNTING THEORY AND PRACTICE
PART I

November 16, 1920, 1 P. M. to 6 P. M.

Answer questions 1 and 2 and any three other questions.

Question 1:

THE NATIONAL SHALE BRICK COMPANY, INC.

Trial balance—October 31, 1920

Allowances on sales	$ 1,500.00	
Accounts receivable	22,000.00	
Accounts payable		$ 19,000.00
Bonds—First mortgage 6%		150,000.00
Buildings:		
Tunnel kilns	150,000.00	
Periodic kilns	100,000.00	
Gas producer	50,000.00	
Dryer tunnels	10,000.00	
Mill—pans and machines	10,000.00	
Power-house	5,000.00	
Sheds and stables	2,000.00	
Cash in bank	2,000.00	
Capital—1,000 shares at $100.00 each		100,000.00
Coal on hand	1,200.00	
Discounts on sales	4,500.00	
Gas coal used—kiln firing	55,000.00	
Horses and carts	1,000.00	
Inventory—bricks, November 1, 1919	5,711.75	
Interest on bonds	6,750.00	
Insurance	2,500.00	
Labor:		
Quarry	12,000.00	
Pans and machines	36,000.00	
Dryer	8,000.00	
Setting	27,000.00	
Kiln firing	65,000.00	
Unloading, etc.	30,000.00	
Power	7,000.00	

Materials and supplies used:		
Pans and machines	$15,000.00	
Quarry	3,000.00	
Dryers	1,500.00	
Setting	750.00	
Kiln firing	3,000.00	
Unloading kilns, etc.	4,000.00	
Power	5,000.00	
Machinery and equipment:		
Pans and machines	50,000.00	
Power-house	15,000.00	
Quarry	10,000.00	
Materials and supplies on hand	1,800.00	
Office supplies and expense	2,500.00	
Prepaid taxes	600.00	
Payroll		$ 3,500.00
Quarry rentals paid in advance	7,500.00	
Sales—brick		415,000.00
Sales—coke—net		7,000.00
Sales—broken and spoiled brick—net		2,000.00
Salaries—officers	10,000.00	
Salaries—office	4,000.00	
Steam coal used:		
Drying	5,000.00	
Power	6,000.00	
Quarry	2,000.00	
Superintendence	10,000.00	
Taxes	3,000.00	
Reserve for depreciation		25,000.00
Unexpired insurance	750.00	
Surplus		53,061.75
	$774,561.75	$774,561.75

The foregoing is the trial balance of the National Shale Brick Company, Inc., manufacturers of shale bricks. The operations consist of (1) blasting, digging and conveying the shale to the machines, called quarrying; (2) grinding, mixing and moulding the wet bricks, called pans and machines; (3) drying; (4) building the bricks in the kiln and preparing the kiln for firing, called setting; (5) burning or kiln firing; (6) opening the kiln and unloading and stocking the burnt bricks, called unloading.

The kilns are equipped with gas burners, the gas being produced on the premises. Some coke is obtained from the gas producer, which is sold.

The production reports for the year ended October 31, 1920, are:

Wet bricks produced	18,000,000
Good and carried to dryers	17,600,000
Spoiled in drying	850,000
Spoiled in burning	830,000
Set in kilns	16,000,000

Bricks sold during the year were 14,500,000.

The inventories of bricks on hand November 1, 1919, were as follows:

Burned bricks in yard	55,000	@ $16.25	$ 893.75
Burned bricks in kilns	200,000	@ 14.75	2,950.00
Bricks burning in kilns	100,000	@ 10.20	1,020.00
Green bricks in kilns	80,000	@ 7.10	568.00
Green bricks in dryers	50,000	@ 5.60	280.00
			$5,711.75

The candidate is required to calculate the number of bricks on hand October 31st, but is advised that, of the total, 100,000 are in the kiln completely burned, 250,000 are in process of burning, 100,000 green bricks are in the kiln. Bricks in process of burning and drying are taken as averaging half the process. Shale and wet bricks from the machine are used as produced and no inventory is taken into account.

The inventories are priced at cost. In the case of burnt bricks work overhead is included; in other cases it is excluded.

The shale bed is rented, rental being payable at the end of each year on the tonnage used. This is calculated at the rate of 3½ tons per thousand wet brick, and the rate is 10 cents per ton. The agreement provides for a minimum rental of $4,000.00 per annum. In case the quantity of shale used is not sufficient to make the $4,000.00, the company is allowed to retain the difference out of subsequent years in which the quantity used may amount to more than $4,000.00.

Depreciation:

Tunnel kilns	7½% per annum
Periodic kilns	10 % " "
Gas producer	10 % " "
Dryer tunnels	7½% " "
Machinery equipment	10 % " "
Other buildings	5 % " "
Sheds and stables	20 % " "

Power is divided 10% to kiln firing, 90% to pans and machines.

Prepare statements showing cost of manufacture, cost per thousand bricks for each operation, profit and loss account and balance sheet.

Answer to Question 1:

The first step is to determine the quantities passed through or half through each process and the quantities in the inventories at each stage of production.

Exhibit A

SCHEDULE OF QUANTITIES PROCESSED AND IN INVENTORIES

October 31, 1920

Wet bricks produced during the year	18,000,000
Deduct bricks spoiled in pans and machines	400,000
Good and carried to dryers	17,600,000
Add green bricks in dryers, Nov. 1, 1919	50,000
Total in dryers	17,650,000
Deduct bricks spoiled in drying	850,000

Good bricks dried and in process of drying.....		16,800,000
Deduct inventory of half dried bricks, Oct. 31, 1920		*800,000
Bricks set in kilns		16,000,000
Add bricks in kilns, November 1, 1919:		
Burned	200,000	
Half burned	100,000	
Green	80,000	380,000
Total bricks in kilns		16,380,000
Deduct bricks spoiled in burning.....		830,000
Bricks burned, half burned, and green in kiln.....		15,550,000
Deduct bricks in kilns at October 31, 1920:		
Burned	100,000	
Half burned	250,000	
Green	100,000	450,000
Good bricks taken from kilns.....		15,100,000
Add burned bricks in yard, November 1, 1919....		55,000
Total good bricks available for sale.....		15,155,000
Deduct bricks sold during the year.....		14,500,000
Inventory of bricks in yard, October 31, 1920.....		655,000

Summary of inventory, October 31, 1920

Burned bricks in yard.....	655,000
Burned bricks in kilns.....	100,000
Bricks burning in kilns.....	250,000
Green bricks in kilns.....	100,000
Green bricks in dryers.....	800,000

The next step is to compute the cost of each process in total and per thousand bricks, and the accumulated cost of the bricks passed through each process.

QUARRYING	*Exhibit B*
Labor	$12,000.00
Material and supplies	3,000.00
Steam coal used	2,000.00
Quarry rentals: 18,000,000 @ $.35 per M.....	6,300.00
Depreciation—machinery and equipment (10% of $10,000)	1,000.00
Total quarrying cost	$24,300.00

* Assumed in order to reduce 16,800,000 to 16,000,000.

Although 18,000,000 wet bricks were produced, only 17,600,000 were good and put into the dryers.

$24,300.00 ÷ 18,000 = $1.35, cost per M of wet bricks produced.

$24,300.00 ÷ 17,600 = $1.38, cost per M of bricks put into dryers.

Pans and Machines		*Exhibit C*
Labor		$36,000.00
Materials and supplies		15,000.00
Depreciation:		
Mill—(5% of $10,000)	$ 500.00	
Machinery and equipment—(10% of $50,000)	5,000.00	5,500.00
Power—90% (see exhibit D)		17,775.00
Total cost of pans and machines process		$74,275.00

$74,275.00 ÷ 17,600 = $4.22, cost per M of 17,600,000 bricks for P. and M. process.

Accumulated cost:

Cost of quarrying (see exhibit B)	$24,300.00
Cost of pans and machines process	74,275.00
Total cost of 17,600,000 bricks through P. and M. process	$98,575.00

$98,575.00 ÷ 17,600 = $5.60, cost of 17,600,000 bricks through P. and M. process.

Power Cost		*Exhibit D*
Labor		$ 7,000.00
Materials and supplies		5,000.00
Steam coal		6,000.00
Depreciation:		
Power-house—(5% of $5,000)	$ 250.00	
Power-house machinery—(10% of $15,000)	1,500.00	1,750.00
Total power cost		$19,750.00
Distribution:		
Pans and machines—90%		$17,775.00
Kiln drying—10%		1,975.00
Total		$19,750.00

Drying	*Exhibit E*
Labor	$ 8,000.00
Materials and supplies	1,500.00
Steam coal	5,000.00
Depreciation—dryer tunnels—(7½% of $10,000)	750.00
Total drying cost	$15,250.00

The computation of the drying cost per M is not as simple as in the cases of quarrying and pans and machines, because of the fact that some of the bricks have been fully dried during the year while others have been only half dried, and because of the further fact that some of the bricks were spoiled in drying. This spoilage cost should be charged against the dried bricks removed from the dryers, and no portion of it should be charged against the half-dried bricks still in the dryers. This is because the spoilage is determined when the bricks are taken out of the dryers and is applicable only to those taken out. Presumably, when the bricks still in process of drying are taken out, more spoilage will be discovered, and this additional spoilage will be chargeable to the bricks now in process.

With some bricks fully dried and others half dried, it is necessary to compute the equivalent in terms of fully dried bricks in order to compute the rate per M for full drying. At November 1, 1919, there were 50,000 bricks in the dryers, which the problem states are to be taken as averaging half dried. Completing the drying of these bricks was, therefore, equivalent

to drying fully	25,000
During the year 17,600,000 bricks were put into the dryers; of this number 800,000 are half dried, which is the equivalent of drying	400,000
The remaining 16,800,000 were fully dried. Adding these	16,800,000
makes the total dry for the year (including bricks spoiled) equivalent to	17,225,000

Then $15,250 ÷ 17,225 = $.8853, drying cost per M of all bricks, good and spoiled. This rate is applied to the 800,000 bricks still in process of drying at October 31, 1920, with the result that no spoilage expense is included in their cost.

The cost of the bricks in process of drying is:

Cost through P. and M. process:	
5.60 × 800 =	$4,480.00
Cost of half drying:	
$.8853 × 400 =	354.00
Total	$4,834.00

The cost of the 16,000,000 good bricks dried will include all the costs of quarrying, pans and machines and drying, minus the cost of the bricks still in process of drying. As no spoilage has been included in the cost of the bricks still drying, the entire spoilage is thrown into the cost of the bricks which have been fully dried. The cost of the 16,000,000 good bricks dried is:

Green bricks in dryers, November 1, 1919	50,000	$ 280.00
Bricks from P. and M. during the year	17,600,000	98,575.00
Drying cost		15,250.00
Total	17,650,000	$114,105.00
Less cost of half-dried bricks (as above)	800,000	4,834.00
Bricks taken from dryers	16,850,000	
Bricks spoiled in drying	850,000	
Good bricks dried	16,000,000	$109,271.00

The accumulated cost per M of bricks through the drying process is:

$109,271.00 ÷ 16,000 = $6.83.

The cost of the drying process per M, including the entire spoilage cost, can be computed thus:

Cost of good bricks dried per M	$6.83
Cost per M through pans and machines	5.60
Drying cost per M good bricks	$1.23

The difference between this $1.23 rate and the $.8853 drying rate computed above should be clearly understood. The $.8853 rate includes only the direct expenses of drying, while the $1.23 includes the cost of the spoiled bricks wasted in drying. The first rate includes no spoilage and is applicable to the bricks still in the dryers; the second rate includes all of the spoilage and is applicable to the good bricks taken out of the dryers.

Setting	*Exhibit F*
Labor	$27,000.00
Materials and supplies	750.00
Total cost of setting 16,000,000 bricks	$27,750.00

Then $27,750 ÷ 16,000 = $1.73, setting cost per M.

The accumulated cost of the bricks set in kilns is:

Cost dried	$109,271.00
Cost of setting	27,750.00
Total cost of dried bricks set	137,021.00

And $137,021 ÷ 16,000 = $8.565, cost per M set.

Burning		*Exhibit G*
Labor		$ 65,000.00
Materials and supplies		3,000.00
Gas coal used	$55,000.00	
Less sales of coke	7,000.00	48,000.00
Depreciation:		
Tunnel kilns—(7½% of $150,000)	$11,250.00	
Periodic kilns—(10% of $100,000)	10,000.00	
Gas producer—(10% of $50,000)	5,000.00	26,250.00
Power—10% (see exhibit D)		1,975.00
Total burning cost		$144,225.00

This burning cost must be distributed in such a way that the spoilage will all be charged to the bricks removed from the kilns and no portion of it against the burned and half-burned bricks still in the kilns. Therefore, it is necessary to compute the burning cost per M without including spoilage, and apply this rate to the burned and half-burned bricks still in kilns. The calculation of this rate is complicated by the fact that some of the bricks were fully burned and some were only half-burned during the year, and hence it is necessary to determine the equivalent of these quantities in terms of fully burned bricks.

Exhibit A shows that..	15,100,000	good bricks were taken from the kilns;
in addition.....	830,000	spoiled bricks were taken out,
making a total of.....	15,930,000	burned bricks removed. But this
total included.....	200,000	fully burned bricks in the kilns at November 1, 1919.
Of this balance.....	15,730,000	
there were.....	100,000	half burned at November 1, 1919.
Hence	15,630,000	were fully burned and removed during the year.

The year's burn, therefore, consists of the following:

100,000 half burned at November 1, 1919, equivalent to....	50,000
Good and spoiled bricks burned and removed during the year	15,630,000
Burned bricks in the kilns at October 31, 1920.....	100,000
250,000 half burned at October 31, 1920, equivalent to.....	125,000
Total	15,905,000

Then $144,225.00 ÷ 15,905 = $9.068, cost of burning per M (not including spoilage).

This rate is applied to the burned and half-burned bricks in the kilns at October 31, 1920, with the result that no spoilage cost is added until the bricks are removed from the kilns. The total quarrying, pans and machines, setting and burning cost of the bricks in the kilns at October 31, 1920, is:

100,000 fully burned:		
Cost set: $8.565 x 100 = ...	$856.50	
Burning cost: $9.068 x 100 = ...	906.80	
Total (@ $17.623 per M).....		$1,762.30
250,000 half burned:		
Cost set: $8.565 x 250 = ...	$2,141.25	
Burning cost: $9.068 x 125 = ...	1,133.50	
Total (@ $13.099 per M).....		3,274.75
100,000 green:		
Cost set: $8.565 x 100 = ...		856.50
Total cost of bricks still in kilns.....		$5,893.55

The next step is to compute the cost, not including work overhead, of the 15,100,000 fully burned bricks taken from the kilns, which is done as follows:

Inventories of bricks in kilns, November 1, 1919:				
Green			80,000	$ 568.00
Half burned			100,000	1,020.00
Burned			200,000	2,950.00
Cost of bricks set during the year (exhibit F)....			16,000,000	137,021.00
Burning cost (exhibit G).....				144,225.00
Total cost through burning process.....			16,380,000	$285,784.00
Deduct inventories in kilns October 31, 1920:				
Burned	100,000		$1,762.30	
Half burned	250,000		3,274.75	
Green	100,000	450,000	856.50	$ 5,893.55
Balance		15,930,000		$279,890.45
Spoiled in burning		830,000	sold for	2,000.00
Cost of burned bricks removed from kilns.....		15,100,000		$277,890.45

NOTE: It is possible that some of the spoiled bricks sold had gone no further than the drying process and were sold after having been spoiled there. If that is the case, the entire $2,000.00 should not be deducted from the burning cost, but I am assuming that a spoiled green brick would not be salable. It will be noted that the $2,000.00 deduction is not made until after adding burning cost to the burned and half burned bricks still in the kilns. This is because the cost of these bricks should not be affected by spoilage expense nor by salvage from spoiled bricks.

The next step is to determine and distribute the work overhead.

WORK OVERHEAD	*Exhibit H*
Insurance	$ 2,500.00
Superintendence	10,000.00
Taxes	3,000.00
Depreciation—sheds and stables (20% of $2,000)	*400.00
Total	$15,900.00

In distributing the overhead a literal interpretation is given to the sentence in the problem: "In the case of burnt bricks work overhead is included; in other cases it is excluded." There were burnt bricks in the kiln a year ago and there are burnt bricks there now. It is assumed that overhead had been added to the 200,000 burnt bricks in the kilns at November 1, 1919; hence, of the 15,100,000 bricks removed during the year, overhead is to be added to only 14,900,000. In addition, overhead must be added to the 100,000 burnt bricks still in the kilns at October 31, 1920. The distribution is therefore as follows:

14,900,000 bricks burned during the year and removed from kilns:	
149/150 of $15,900	$15,794.00
100,000 bricks burned during the year and left in kilns:	
1/150 of $15,900	106.00
Total work overhead	$15,900.00

The total cost of the bricks in the kilns at October 31, 1920, and the total cost of those taken from the kilns, can now be computed.

		Total	*Per M*
100,000 green bricks in kilns (as above)		$ 856.50	$ 8.565
250,000 half-burned bricks (as above)		3,274.75	13.099
100,000 burned bricks in kilns:			
Cost set and burned (as above)	$ 1,762.30		
Add portion of work overhead	106.00	1,868.30	18.683

* If the horses and carts are used in quarrying, the depreciation on horses and carts (not provided for in the problem) and on sheds and stables, should be included in quarrying cost; if used in unloading, the depreciation should be included in that process. It is possible that it should be divided between these two and perhaps other processes. For this reason it is included in the overhead.

15,100,000 burned bricks removed from kilns:			
Cost set and burned (as above)....	$277,890.45		
Work overhead on 14,900,000.....	15,794.00	$293,684.45	$ 19.4493

UNLOADING	*Exhibit I*
Labor	$ 30,000.00
Materials	4,000.00
Total cost of unloading 15,100,000 bricks.....	$ 34,000.00

Then $34,000 ÷ 15,100 = $2.25, unloading cost per M.

The total cost of the bricks put into the yard during the year is:

Cost burned, including work overhead (as above).....	$293,684.45
Unloading	34,000.00
Total cost of 15,100,000 bricks put into yard.....	$327,684.45

Then $327,684.45 ÷ 15,100 = $21.70096, cost per M of finished bricks.

COST OF SALES	*Exhibit J*
55,000 bricks in yard, November 1, 1919 (per problem)...	$ 893.75
14,445,000 bricks manufactured during year (@ $21.70096)...	313,470.33
14,500,000 bricks sold	$314,364.08

The inventory of burned bricks in the yard is 655,000 (see exhibit A), and their cost is $21.70096 x 655, or $14,214.12.

Exhibit K

THE NATIONAL SHALE BRICK COMPANY, INC.

Statement of Cost of Bricks Manufactured and Sold

November 1, 1919, to October 31, 1920

	Number	*Cost*	*Per M*
Quarrying cost (exhibit B).....	18,000,000	$24,300.00	$ 1.35
Deduct spoilage	400,000		
Cost of bricks put in pans and machines	17,600,000	$24,300.00	1.38
Pans and machines cost (exhibit C)....		74,275.00	4.22
Total cost of bricks put in dryers....	17,600,000	$98,575.00	5.60
Add half-dried bricks in dryers, Nov. 1, 1919	50,000	280.00	5.60
Drying cost (exhibit D).....		15,250.00	1.23
Total	17,650,000	$114,105.00	

Less cost of bricks half dried, Oct. 31, 1920			800,000	$ 4,834.00	$ 6.04
Bricks dried			16,850,000		
Less bricks spoiled in drying			850,000		
Total cost of bricks dried			16,000,000	$109,271.00	6.83
Setting cost (exhibit F)				27,750.00	1.73
Cost of bricks set in kilns during the year			16,000,000	$137,021.00	8.565
Add inventories of bricks in kilns, Nov. 1, 1919:					
Green			80,000	568.00	7.10
Half burned			100,000	1,020.00	10.20
Burned			200,000	2,950.00	14.75
Burning cost (exhibit G)				144,225.00	9.068*
Add work overhead on burned bricks (exhibit H)				15,900.00	
Total			16,380,000	$301,684.00	
Less spoiled and broken bricks sold			830,000	2,000.00	
Cost of bricks through and still in kilns			15,550,000	$299,684.00	
Deduct inventories, Oct. 31, 1920, in kilns:					
Green	100,000	$ 856.50			8.565
Half burned	250,000	3,274.75			13.099
Burned	100,000	1,868.30			18.683
Total inventories			450,000	5,999.55	
Cost of bricks removed from kilns			15,100,000	$293,684.45	19.4493
Unloading (exhibit I)				34,000.00	2.25
Total cost of bricks put in yards			15,100,000	$327,684.45	21.70096
Add inventory of bricks in yard, Nov. 1, 1919			55,000	893.75	16.25
Total bricks available for sale			15,155,000	$328,578.20	
Less inventory, bricks in yard, Oct. 31, 1920			655,000	14,214.12	21.70096
Cost of bricks sold			14,500,000	$314,364.08	

* $9.068 is the burning cost per M, not including spoilage and work overhead. The rate including these items is:

$19.4493	cost per M of burned bricks removed from kilns
8.565	cost per M of bricks set in kilns
10.8843	cost per M of burning good bricks

THE NATIONAL SHALE BRICK COMPANY, INC. *Exhibit L*

Profit and Loss Statement

November 1, 1919, to October 31, 1920

Sales—brick		$415,000.00
Less allowances on sales		1,500.00
Net sales		$413,500.00
Deduct:		
Cost of bricks sold (exhibit K)		314,364.08
Gross profit on sales		$99,135.92
Deduct:		
Administrative expense:		
Office supplies and expenses	$ 2,500.00	
Salaries—officers	10,000.00	
Salaries—office	4,000.00	16,500.00
Net profit on operations		$82,635.92
Deduct:		
Financial charges:		
Discounts on sales	$4,500.00	
Interest on bonds*	6,750.00	11,250.00
Net profit for the year		$71,385.92
The quarry rentals paid in advance at November 1, 1919, were		$ 7,500.00
The rentals for the current year were	$ 6,300.00	
Minimum payable in cash	4,000.00	
Excess deducted from rentals paid in advance		2,300.00
Balance of rentals paid in advance		$5,200.00
The depreciation reserve at November 1, 1919, was		$25,000.00
Credits during the year:		
Tunnel kilns	$11,250.00	
Periodic kilns	10,000.00	
Gas producer	5,000.00	
Dryer tunnels	750.00	
Mill—pans and machines	500.00	
Power-house	250.00	
Sheds and stables	400.00	
Pans and machines	5,000.00	
Power-house machinery	1,500.00	
Quarry machinery	1,000.00	35,650.00
Balance at October 31, 1920		$60,650.00

* Interest has been paid on the bonds for only nine months. If the bonds were outstanding the entire year, there is $2,250.00 accrued interest. However, the date of issue is unknown.

THE NATIONAL SHALE BRICK COMPANY, INC. *Exhibit M*

Balance-sheet

October 31, 1919

Assets

Current assets:			
Cash			$ 2,000.00
Accounts receivable			22,000.00
Inventories:			
Green bricks in dryers—			
800,000 @ $6.04	$ 4,834.00		
Green bricks in kilns—			
100,000 @ $8.565	856.50		
Bricks burning in kilns—			
250,000 @ $13.099	3,274.75		
Burned bricks in kilns—			
100,000 @ $18.683	1,868.30		
Burned bricks in yard—			
655,000 @ $21.70	14,214.12	$25,047.67	49,047.67
Fixed assets:			
Buildings:			
Tunnel kilns	$150,000.00		
Periodic kilns	100,000.00		
Gas producer	50,000.00		
Dryer tunnels	10,000.00		
Mill—pans and machines	10,000.00		
Power-house	5,000.00		
Sheds and stables	2,000.00	$327,000.00	
Machinery and equipment:			
Pans and machines	$50,000.00		
Power-house	15,000.00		
Quarry	10,000.00	75,000.00	
Total depreciated assets		$402,000.00	
Less reserve for depreciation		60,650.00	
Depreciated value		$341,350.00	
Horses and carts		1,000.00	342,350.00
Deferred charges:			
Coal		$1,200.00	
Materials and supplies		1,800.00	
Prepaid taxes		600.00	
Quarry rentals paid in advance		5,200.00	
Unexpired insurance		750.00	9,550.00
			$400,947.67

Liabilities

Current liabilities:			
Accounts payable		$19,000.00	
Payroll		3,500.00	
Quarry rental minimum		4,000.00	$ 26,500.00
Fixed liabilities:			
Bonds—first mortgage 6%			150,000.00
Capital:			
Capital stock		$100,000.00	
Surplus			
Balance, Nov. 1, 1919	$53,061.75		
Profits for the year (exhibit L)	71,385.92	124,447.67	224,447.67
			$400,947.67

Question 2:

(a) The X Y Z company, established for ten years, has a machinery and equipment account which has been increased from year to year as new equipment purchases have been made. It appears also that certain renewals and repairs have been charged to this account. Each year a credit has been made to the account for depreciation, offset by corresponding debit to profit and loss account, the ratio of depreciation being adequate. The company now disposes of a part of its plant at a price equal to what was paid for it seven years previously and credits the entire amount to machinery and equipment account. What adjustments, if any, are needed to correct the account?

(b) The company also has several delivery trucks charged to truck account at cost, against which it has set up depreciation at end of each year by credit to a separate reserve for depreciation of trucks, debiting the amount to profit and loss account. A truck was purchased January 1, 1918, for $4,000.00. Depreciation has been provided at 20% per annum. On December 31, 1919, it is wrecked by collision; $1,000.00 is obtained from the insurance company and $250,000 obtained from salvage. What entries are needed to adjust the ledger accounts?

Answer to Question 2:

(a) Ordinary renewals and repairs should not have been charged to the asset account, and they should be taken out and charged to surplus, except those of the current year, which should be charged to profit and loss.

As the asset account had been credited with depreciation, the balance of the account represented the carrying value of the machinery and equipment (plus renewals and repairs, which will be taken out). The account should have been credited with the carrying value of the portion of the plant sold. The entry for the sale should be reversed and an entry made crediting the asset account with cost less depreciation and crediting surplus with the depreciation written off, not because it was depreciation but because it is the difference between carrying value and selling price, and this difference is an extraneous profit. While we are adjusting the accounts it would be

advisable to take the depreciation credits out of the asset account and set them up in a reserve.

(b)	Cash		$1,250.00	
	Reserve for depreciation.		1,600.00	
	Surplus		1,150.00	
	Truck account			$4,000.00
	To record the wreck of a truck costing	$4,000.00		
	Insurance	$1,000.00		
	Salvage	250.00	1,250.00	
	Loss	$2,750.00		
	Partially covered by reserve	1,600.00		
	Balance charged to surplus	$1,500.00		

Question 3:

In a certain department of a large dry-goods house the purchases for a year were $30,000.00. They were in the first place marked up for "selling" purposes to $45,000.00. Later additional mark-ups amounting to $2,000.00 were made and mark-downs were also recorded aggregating $5,000.00. At the end of the fiscal period there were found to be on hand goods of the marked selling value of $10,000.00. State how you would arrive at their inventory value for the purpose of closing the books, and calculate the amount. Explain fully.

Answer to Question 3:

I should recommend taking a physical inventory for purposes of closing the books because the method of approximating cost from the figures given is based on averages and will not give accurate results unless the mark-ups and mark-downs applied proportionately to all goods purchased and sold. The approximate inventory could be computed as follows:

Original selling price	$45,000.00
Add mark-ups	2,000.00
Total	47,000.00
Less mark-downs	5,000.00
Net	$42,000.00

$42,000.00 ÷ $30,000.00 = 140%, ratio of selling price to cost.
$10,000.00 ÷ 140% = $7,142.86, approximate cost.

* * * *

Solutions will be continued in the February issue.

Bernard H. Arnold, Meyer D. Stern and Bernard Rose announce the formation of a partnership under the firm name of Arnold, Stern & Rose with offices in the Andrus building, Minneapolis, Minnesota.

R. S. Stone and Harvey J. Stevenson announce the formation of a partnership under the firm name of Stone & Stevenson with offices in the Security building, Los Angeles, California.

Curtis F. Scott and G. A. Ruhl announce the formation of a partnership under the firm name of Scott & Ruhl, with offices in the Whitney Central building, New Orleans, Louisiana.

Edwin F. Herold announces the opening of an office in La Salle building, Broadway and Olive street, St. Louis, Missouri.

Charles P. Rupp announces the opening of an office at 613 Claus Spreckels building, San Francisco, California.

Orrin A. Redman announces the removal of his office to 1310 Lake View building, Chicago, Illinois.

Guthrie Hunter & Co., New York, announce that Thomas Heads has become a member of the firm.

Frank L. Pollard announces the opening of an office in Granite block, Watertown, South Dakota.

P. Miles Taylor & Co. announce the removal of their office to 49 Wall street, New York.

Theodore Krohn announces the opening of an office at 763 Broad street, Newark, New Jersey.

Stanley W. Park announces the removal of his office to 56 Pine street, New York.

S. J. Levenson announces the opening of an office at 507 Fifth avenue, New York.

Charles Frost announces the opening of an office at 277 Broadway, New York.

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Some Problems in Depreciation*

By J. Hugh Jackson

Every writer on the subject of valuations and of accounting in general has given more or less attention to the problem of depreciation; yet every careful student of depreciation fully realizes that much yet remains to be done. In this brief paper, only three points of interest and of importance will be discussed—points which affect in a vital way our every day practice in accounting, and our understanding of the fundamental meaning of depreciation.

Before taking up these special problems, however, it is well to observe anew the fundamental purpose of the depreciation charge. This purpose is two-fold. In the first place, every expenditure for equipment, supplies or materials of any kind is a cost of producing commodities during the economic life of those assets. Inasmuch as supplies and materials are entirely consumed in one or, at most, a few processes of production, these items are obviously costs of the current accounting period. But in the case of long-life equipment lasting over several accounting periods, the total cost must be apportioned to the several periods in which this item of equipment will help to produce income. This is depreciation.

But a second purpose of the depreciation charge, in apportioning to the several accounting periods the value of the asset due to its use for productive purposes, and due to the passage of time, is to show the asset at its net value on the balance-sheet and in the books of the business. The question at once arises as to

* A paper read at the New England regional meeting of the American Institute of Accountants, Boston, December 8, 1920.

whether the depreciation charge can accomplish both these purposes, and, in case both cannot be accomplished, which shall take precedence. Accountants themselves may be assumed to understand the relative importance of these two purposes of the depreciation charge, but the belief is prevalent among laymen that the showing of true values on the balance-sheet is the sole thing intended. And so immediately there arises criticism of the whole accounting scheme. Engineers tell us that a machine with an economic life of ten years is not one-half worn out at the end of five years, but that if the machine is producing as efficiently, at that moment of time, an identical new machine it is worth its cost-new value. Perhaps at the end of eight or nine years, such a physical valuation would show the machine worth 50 per cent. to 70 per cent. of its original cost—even though in another year or two the machine must be scrapped. We are thus told that our accounts are incorrect and largely worthless, and that they do not show the true going-concern value of the assets. An economist of national repute informs us that depreciation over and above adequate repairs, replacements and renewals is a mere abstraction —a bookkeeping fiction; while even Dicksee, in his *Advanced Accounting* (p. 5) says there is not necessarily any close connection between the intrinsic value of capital assets at any given moment and the (depreciated) value at which they appear in the books of account.

This leads us to conclude that the whole purpose, or even the main purpose of depreciation is not to show values on the balance-sheet. What, then, is the main purpose of the depreciation charge? Briefly, the main purpose of the depreciation charge is to distribute proportionately over the economic life of the asset the net outlay of capital. This annual charge may leave an amount having little relation to the actual value of the asset at a particular moment, and so the man interested only in valuations may feel that it is a fiction; but it is the one safe and sound basis upon which business today can venture to operate. The total net outlay for wasting assets must be absorbed by *all* the output of that asset or group of assets, and not by that part of the output produced during the rapidly declining efficiency of the assets. This means that the expense must be distributed over the entire period during which the assets are productive, and this is why the de-

preciation charge is made annually from the installation of the plant units—even though such procedure may mean that the written-down book value of the assets, as reflected by the balance-sheet, is not their real value at a given moment to a going concern.

On What Basis Shall Depreciation Be Computed?

Of the problems discussed, the first deals with the somewhat common question, resulting from this period of rising prices, as to whether depreciation should be computed on the basis of the cost of wasting assets or on the basis of what it will cost to replace these assets when worn out. To make the problem concrete, assume a manufacturing plant which originally cost $1,000,000 (or which had that value at March 1, 1913), and that it would require $2,000,000 to replace it. Shall the annual depreciation charge to operations be made on the basis of the $1,000,000 or on the basis of $2,000,000? Or, to express it another way, is the purpose of the depreciation charge to maintain the capital investment or is it to replace the physical plant?

It is well recognized among accountants that the cost of doing work or of producing commodities of any kind includes the loss due to the physical and functional depreciation of fixed assets. This wearing out and this obsolescence loss take place during the life of these particular assets. Hence, this expense is chargeable against the product turned out during the life of these assets and not against the product turned out after their lifetime. If a true cost is to be obtained, therefore, the original cost of the equipment, less any salvage value, is the depreciation expense chargeable to the total output of a unit of plant during its economic life. The fact that the equipment cannot be replaced at the same cost, but only at much more, has nothing to do with the cost of the present product but only with the cost of future product turned out by the subsequent plant. True cost, therefore, can be obtained only by including as the total depreciation charge the loss based on the original cost of the equipment.

However, the fact that true cost can be obtained only by computing the depreciation charge on the original cost of the equipment does not mean that prices must be fixed on the cost figures so obtained. This would mean that the customer would get the use of low-cost equipment in the days of high-cost equipment.

Whether the manufacturer or the customer shall get this advantage is a question of policy or expediency and not of pure accounting. As most equipment now in use was purchased when prices were considerably lower than now, true costs are lower than they would be if the charge to operations for depreciation were made on the basis of replacing the present physical plant at the present price level. So, unless a somewhat greater percentage is added to cost to obtain the selling price, the customer gets the benefit arising from the purchase of equipment when prices were lower than now. This policy concerning selling price cannot alter actual cost, however, for the current price level cannot determine the depreciation expense chargeable to operations.

Whether the customer or the producer shall have the advantage of the low-priced equipment will determine the composition of the selling-price of the commodity. In case the customer reaps the advantage of the low-cost equipment the selling-price of the article will be made up of (a) a certain sum representing cost and (b) a sum representing normal profit. In the other case the selling-price must equal (a) a certain sum representing cost, (b) a certain sum representing additional provision for replacement (being an actual surplus and measuring the amount of capital contributed by the customers to compensate the manufacturer for the excess value of his equipment at whatever the market price may be at that time and without considering at all what the plant may have cost) and (c) a balance as normal profit. Upon the wearing out of the original equipment the books will show, if the estimated life of the asset was correct, the reserve (or allowance) for depreciation account credited for the original cost, less salvage, of the plant; while a reserve for replacements or similar account will be credited for as much of the increased cost of replacing the equipment as the business had succeeded in collecting from its customers. As pointed out in a previous article by the author, appearing in THE JOURNAL OF ACCOUNTANCY, the closing entries for both accounts would be very simple. By this method the proprietor would get the proper return for his more valuable equipment, and at the same time have the benefit of knowing his true costs.

This computing of the depreciation charge upon the original cost of the equipment is not only sound in theory but is largely

followed in practice. Both the interstate commerce commission and the internal revenue bureau hold that depreciation shall be so computed, unless a satisfactory reason can be advanced for using some other basis. In the interstate commerce commission's classification of operating revenues and operating expenses of steam roads, effective July 1, 1914, special instructions, section 8, it is provided that the "depreciation charges shall be based in each instance upon the percentage of the *original cost* (estimated if not known), ledger value or purchase price of the property determined to be equitable by the carrier's experience and best sources of information as to the actual current loss from depreciation. A statement of the bases used by the carrier for computing these charges shall be included in its annual report to the commission." The original adoption of the interstate commerce commission's classification of accounts probably meant a considerable change in the methods of account-keeping for many of the railroads, so the commission naturally adopted at that time a policy of some latitude, yet clearly placing emphasis on the *cost* value of the assets. If the property was produced by the carrier itself, it was original cost, even though the lack of previous accounting made an estimate of that cost necessary. If the property was purchased, it was purchase price, which again may be called cost value to the purchaser. Even ledger value, if the accounts had been properly kept, would mean cost value, and if ledger value and cost value were not synonymous when these classifications went into effect, they will become more and more so, under the interstate commerce commission's supervision and regulation, as the years progress. The directions for the specific accounts provide that the depreciation charges "shall cease when the difference between the ledger value and the estimated scrap value shall have been credited to the accrued depreciation account." All this tends to prove our thesis that the purpose of the depreciation charge is to maintain the investment, and not necessarily to maintain the physical property.

It is interesting to note, however, that since the interstate commerce commission's classification of accounts does not require depreciation reserves to be set up for fixed property, but permits the roads to charge to maintenance all expense incurred in maintaining it, these charges maintain (or replace, if necessary) the

physical property, instead of simply maintaining the capital investment. This is true, even though the interstate commerce commission definitely states that the loss from property chargeable as operating expense shall be the difference between the ledger value and the estimated scrap value of the property considered.

The internal revenue bureau has laid down the rule, even more strongly than has the interstate commerce commission, that depreciation must be computed on the cost value of the assets, and that when the difference between this cost value and the residual value of the plant has been charged off as depreciation expense, no further depreciation may be written off. Due to the fact that our income tax dates back only a few years and that it would obviously be unjust on the part of the government to penalize businesses for the poor accounting or lack of accounting methods before that time, the internal revenue bureau, not as a matter of principle, but as a matter of expediency, provides in regulations 45, Article 164, that "the capital sum to be replaced by depreciation allowances is the cost of the property in respect of which the allowance is made, except that in the case of property acquired by the taxpayer prior to March 1, 1913, the capital sum to be replaced is the fair market value of the property as of that date." A moment's consideration will show that this is no compromise of principle, for, as soon as assets in use at March 1, 1913, are worn out, only the original cost of assets will be accepted as a basis for depreciation. The regulations clearly set forth that the purpose of the depreciation charge is to maintain the capital investment and not to replace the plant.

Treatment of Unexpected Loss From Obsolescence

A second problem of present interest concerns the unexpected loss arising from obsolescence. Shall this capital loss or this loss as yet unprovided for through the annual charge for depreciation (even though the provision for depreciation does *supposedly* include an amount necessary to cover obsolescence) be charged against the accumulated profits of previous years as reflected in the surplus, or shall the amount be charged into operations as a cost of the current or following periods?

Aside from such regulations as may come at once to mind, the problem is not without interest. The product of every manu-

facturer has its selling price determined by competition or by the maximum return possible under the supply-and-demand schedules of a monopoly or by the addition of a fixed percentage to the cost. The latter is really governed by one of the two former factors or by a combination of them.

If the selling price of the commodity is determined by competition, it may be assumed that no more could have been received for the product, regardless of its cost. To state this another way, the return from sales could not have been any greater even if this additional depreciation or obsolescence had been included in the cost of the product sold. It is obvious, therefore, that the margin between selling price and cost was greater than it should have been and that the profits of previous periods were correspondingly over-stated. This being true, the unforeseen loss must be charged against the accumulated profits of these past years, thus bringing that figure to what it really should have been.

In the case of the maximum return possible under the supply-and-demand schedules of a monopoly, it may be assumed that the unit selling price could not have been increased and the same number of units of product sold. This additional loss has increased the cost per unit of commodity produced, and it is possible that, had this extra item of cost been known, a different selling price might have been fixed. However, by the economic law of monopoly prices,* the manufacturer would not recover from the customers any of the loss resulting from the unforeseen obsolescence. Again, therefore, the entire amount must be charged against the otherwise over-stated profits of those years during which the now obsolete machine has been in use.

In the case of cost-plus contracts it may appear at first thought that this loss unjustly cuts down the profits already recorded for these periods. If this additional obsolescence had been included in production costs, the business would not only have got back that amount, but also would have received the regular percentage of profit on that expense. This would assume, of course, that the business would have got all the contracts it did get or their equiv-

* Professor Marshall, in his *Principles of Economics,* page 480, ¶ 4, in speaking of decreases or increases in the cost of production under monopoly conditions, says: "Whatever be the price charged and the amount of the commodity sold, the monopoly revenue will be increased or diminished, as the case may be, by this sum; and therefore that selling price which afforded the maximum monopoly revenue before the change will afford it afterwards. The change therefore will not offer to the monopolist any inducement to alter his course of action."

alent at the higher cost to the customer, but this assumption is by no means certain. The profits may not in this case have been overstated, and the business may feel that this loss should be held in suspense and charged as an expense to future contracts. But this raises the question as to whether or not future customers should be charged for under-charges made to past customers. The answer seems obvious; also, as has been pointed out, the total cost of an asset must be absorbed by the product turned out during its life and not by any product produced after it has been discarded. So, even in this case, for the two reasons just given, it becomes necessary to absorb this unforeseen loss from obsolescence through the accumulated profits of past periods—the total returns from any machine or group of machines necessarily absorbing the entire capital outlay on account of those assets.

It is interesting now to turn from the theory to actual practice regarding this type of loss. In the interstate commerce commission's classification on operating revenues and operating expenses of steam roads, effective July 1, 1914, under operating expense accounts special instructions, paragraph five, it is provided that "the ledger value (less salvage and the credit balance in the accrued depreciation account with respect to the property retired) of fixed improvements retired and replaced with property of like purpose, together with the cost of removing the property retired, shall be included in the accounts appropriate for the repairs of the property before retirement." This means that this unforeseen and unprovided-for loss shall be included in the expenses of operations for the year. Whether the amount is carried directly to the accumulated profits (profit and loss, in this classification), thus permitting the current year to show its normal profit, or the current year shows a correspondingly small profit and the accumulated profits remain unchanged, the same result is reached at the close of the period in which this unforeseen loss occurs. However, it does not seem just thus to burden the current year with the mis-estimated depreciation cost of former years.

These special instructions further provide that

> in case the amount chargeable as operating expenses for property retired and replaced is relatively large, and its inclusion would seriously distort the expense accounts for a single year, the carrier, if so authorized by the commission, may charge the amount thereof to balance-sheet account No. 726, "property abandoned chargeable to operating expenses," and distribute it

thereafter, in accordance with the provisions of that account to the operating expenses of succeeding years.

Or,

if so authorized by the commission, the carrier may charge to profit and loss any extraordinarily large item representing the cost of property retired and replaced, instead of charging such item to operating expenses. The carrier shall file with the commission a statement of the cost and a description of the property retired and the reasons which, in its judgment, indicate the propriety of charging the cost of such property to profit and loss.

Inasmuch as under this classification of accounts no provision for depreciation need be made, unless desired, for fixed improvements, these large amounts representing the difference between ledger value and residual value, less the accumulated credit to the reserve for depreciation accounts, will often represent elements other than unforeseen loss from obsolescence. But, if so authorized by the commission, any or all of these charges may be charged against the accumulated profit and loss. Inasmuch as the assets have been in use over a period of years, unless the charge to operations on account of retirements and replacements of composite plant is fairly uniform from period to period, in which case the result is the same though the theory remains unchanged, the total cost therefor is chargeable to the entire period of the economic life of the assets. The gross loss, upon their retirement from service, should be chargeable against the accumulated and correspondingly over-stated profits of those same years.

As regards the regulations of the internal revenue bureau, article 143, regulations 45, provides that

when through some change in business conditions the usefulness in the business of some or all of the capital assets is suddenly terminated, so that the taxpayer discontinues the business or discards such assets permanently from use in the business, he may claim as a loss for the year in which he takes such action the difference between the cost or the fair market value as of March 1, 1913, or any asset so discarded (less any depreciation allowances) and its salvage value remaining.

Special provisions then follow requiring full explanation as to why the assets were discarded, and additional provisions (articles 181-188, regulations 45) take care of special losses arising from amortization of assets used especially for war production. It may seem that all these legal provisions violate the accounting principles as above stated, but a little consideration leads one to conclude that whatever violations may exist result not from any desire to set aside the principles of good accounting, but from

business expediency. The author well remembers hearing one of the leading accountants in America, and a partner in one of the great national firms, say that while it was the policy of the firm always to adhere in practice to the best recognized principles of accounting, oftentimes expediency required them to depart somewhat from those principles. That is very largely the condition here. Suppose, in the case of an asset having an estimated life of twenty years, that annually for twelve years 5 per cent. of its value has been written off on the books of the business and has been taken as an allowable deduction on the federal tax return. In the thirteenth year, unforeseen by anyone, a new invention makes the old asset worthless. It would have been entirely possible for the internal revenue bureau to have said that if the business desired to deduct that loss, it must revise its returns for the twelve years past and write off for each of those years the additional portion of the loss that rightfully belonged to each year—but what a protest there would have been from taxpayers everywhere. Expediency and common-sense demanded that obsolescence loss be handled as provided in this article 143. It should be observed, however, that the article does not provide how the loss shall be recorded on the books except that "to be deductible under this exception" the amount "must be charged off on the books and fully explained in returns of income." Whether the loss shall be charged into the current operations of that year or charged against the accumulated profits of previous years (being treated as a surplus adjustment) does not seem to concern the department. Therefore, even in this case, the procedure on the company's books may follow entirely the commonly recognized principles of good accounting as set forth in this paper.

Shall Depreciation Be Deducted in Determining the Just Amount on Which a Utility May Earn?

Volumes have been written on the third and last problem to be discussed, and only a brief discussion can be given of it here. Two questions have been raised, namely, (a) whether or not depreciation really exists in the assets of such properties, and (b) whether or not that depreciation which does exist shall be deducted from the gross value to determine the amount on which the investors shall be permitted to earn the fair return.

In the valuation of railroad properties made in Minnesota,[1] Wisconsin[2] and Michigan,[3] it was found that the depreciated value of the properties under the conditions existing in those states was on the average about 80 per cent. of the cost of reproduction new. After eliminating such items as land, grading and similar units on which no depreciation was computed, the depreciated value of the railroads in the three states named was determined to be about 75 per cent. of the estimated value new of the properties.

In a report of the St. Louis public service commission, Sept. 11, 1912, relating to the United Railways Company of St. Louis and to the Southwestern Telephone & Telegraph Company, James E. Allison, chief engineer, determined the theoretical value curve of the United Railways Company to be 54.5 per cent. of the cost new of the property. In this case the scrap value of the property was taken, for the entire composite plant, at 9 per cent., making the theoretical depreciation 45.5 per cent. of the cost new of the property. Mr. Allison would seem to deny, however, that actual depreciation exists if the plant is giving 100 per cent. efficient service. From his study Mr. Allison formulated a general principle that in the case of a property of any complexity, after a sufficiently long period of operation, it will be about one-half worn out, or, more exactly, that it will reach a "normal theoretical value" approximately one-half way between 100 per cent. new and scrap value. Mr. Allison also says that if the "theoretical depreciation charges have been made from the installation of each item the accumulation in the depreciation fund will always equal the amount of depreciation * * * * * * a great part of the fund will be a needless accumulation as it can never be used for replacement or renewal." It is interesting to note that in August, 1914, there appeared, in the *Harvard Quarterly Journal of Economics,* an article by Professor Allyn A. Young, of Cornell university, and the same article somewhat amended appeared as appendix E in a report by Mr. Allison on the Houston Lighting & Power Co. 1905, under date of July 22, 1914, in which Professor Young states emphatically that Mr. Allison "was the first to elucidate these general principles, though when once brought to light, they

[1] Twenty-fourth annual report of the Minnesota railroad and warehouse commission (1908), p. 52.

[2] Fifth biennial report of the Wisconsin tax commission (1910) appendix D. See also table in the fourth biennial report of the Wisconsin tax commission (1909), p. 128.

[3] Bulletin 21 of the bureau of the census (1905), p. 78.

seem, as is the way with important new generalizations, both simple and obvious." Yet in a letter dated April 30, 1908, to the interstate commerce commission, regarding the treatment of maintenance and depreciation accounts in the new classification of accounts prescribed for railroads, Price, Waterhouse & Co. set forth the same general ideas, and state: "If a fund is established on a proper basis for an entirely new property or group of properties, it should steadily grow until it reaches a sum representing the difference between this percentage (the 'average efficiency') and one hundred per cent. of the original cost." This letter states further, what Mr. Allison emphasized at considerable length, that "this sum will represent continuously what may be called the permanent depreciation of the property, which in practice will never be made good."

That depreciation does actually exist in the case of a public utility, it is assumed, no accountant will deny. Most accountants, undoubtedly, have not analyzed the problem as carefully or as thoroughly as either the engineer or firm of accountants above mentioned, but as one studies the problem one must be impressed with the fact that the present situation and present attitude towards depreciation as exemplified in private industry, by commissions and by courts is largely the accounting and the accountant's view of the problem.

And what is more, the problem must continue to be largely an accounting one. Double entry is always assumed by laymen to be a purely mechanical device, the only purpose of which is to see that the books are in arithmetical balance. Every accountant knows, however, that the double entry represents a double aspect of the facts of the case, and he will use the double-entry processes as a mental aid in keeping track of those facts. Many valuation experts will not admit those relationships between the assets and liabilities sides of the balance-sheet and between the balance-sheet and income sheet, which the accountant knows to be fundamental. The latter knows that a reverse for depreciation on the liabilities side of a balance-sheet is inseparably connected with the wasting assets contra; he knows that no charge has any legitimate place in the income sheet, unless in some real way the asset accounts of the balance-sheet are depleted by a corresponding amount.* The

* For an economic discussion of the principles involved see Professor Taussig's *Principles of Economics*, Vol. I,, especially pages 77, 78, and 79. Observe also the note at the bottom of page 78.

valuation expert admits none of these things and regards them as purely artificial arguments, arising from the fact, as Professor Young states, that the accountant is "misled by the arbitrary categories of accounting."

In speaking recently with one of the foremost valuation engineers in the United States, the author was informed that in the opinion of this engineer a public service utility must collect from those served by it sufficient to cover (a) ordinary operating expenses, (b) taxes, (c) depreciation, (d) interest on funded and floating indebtedness and (e) a fair return on the investors' money. This engineer obviously recognizes that depreciation exists for the purposes of the income statement, and it may be assumed that Mr. Allison would be of the same opinion.

Professor Geo. F. Swain, of Harvard university, and ex-president of the American Society of Civil Engineers, in a report in 1911 to the Massachusetts joint commission on the New York, New Haven & Hartford Railroad Company, while maintaining that allowance for depreciation should not be made (page 59 of the report) in fixing rates for service, does recognize that depreciation exists, and he computed the depreciated value of the property. The present valuation new is shown (exhibit 5, page 134 of the report) as $304,601,824.00, while the present depreciated value is shown as $263,601,136.00. Here, then, is recognized existing depreciation of $41,000,688.00.

In 1909, the Supreme Court of the United States, in *Knoxville v. Knoxville Water Company* (212 U. S. 1) decided definitely (a) that depreciation does exist in the case of a public service property, (b) that such a company is entitled to earn its depreciation annually as the depreciation accrues and (c) that the rate-payers (customers) must pay for the depreciation on the property. This is entirely in accord with the best accounting practice, as known today. In 1912, in the Minnesota rate cases (230 U. S. 352), the court not only asserted that depreciation existed, but it disapproved the master's action in offsetting the depreciation, which had in fact happened, by appreciation.

It being generally recognized, then, that depreciation does exist in such a property, the real question is whether this depreciation, recorded usually in the income sheet and actually collected from the rate-payers, shall be considered a deduction in determining

the fair value or just amount on which the public service property may earn a return. The law on this question may be considered well settled. In the *Knoxville v. Knoxville Water Company* decision (1909), 212 U. S. 1, the city of Knoxville appealed from a decree of the United States circuit court permanently enjoining the enforcement of a city ordinance fixing maximum rates to be charged by the water company upon the ground of constitutional invalidity. No deduction was found to have been made for depreciation. The United States supreme court here definitely enunciated the rule that depreciation should be deducted from the cost to reproduce new. The court said:

> The first fact essential to the conclusion of the court below is the valuation of the property devoted to the public uses, upon which the company is entitled to earn a return. * * * The valuation was determined by the master by ascertaining what it would cost, at the date of the ordinance, to reproduce the existing plant as a new plant. The cost of reproduction is one way of ascertaining the present value of a plant like that of a water company, but the test would lead to obviously incorrect results, if the cost of reproduction is not diminished by the depreciation which has come from age and use. * * *
>
> The cost of reproduction is not always a fair measure of the *present value* of a plant which has been in use for many years. The items composing the plant depreciate in value from year to year in a varying degree. * * *
>
> It is not easy to fix at any given time the amount of depreciation of a plant whose component parts are of different ages with different expectations of life. But it is clear that some substantial allowance for depreciation ought to have been made in this case. * * *

The court discussed the various phases of the case at length, but it seems fair to assume, from subsequent ruling,* that complete and incomplete depreciation should not be added to the present value of the surviving parts; that the court included in the term depreciation what is usually described as "accrued depreciation" or "theoretical depreciation," or the liability even now accrued toward the ultimate cost of replacement of still efficient apparatus.

As regards the Knoxville decision there is, of course, the opposition which naturally arises from contending counsel, but the author has not, in his reading, found a court or commission of standing, except possibly the supreme court of Idaho, that does not support the Knoxville decision. Following the authority of that decision, the courts, in later cases, have given full recognition

* *People ex rel. Kings Co. Ltg. Co. v. Public Service Commission* (1913), 156 N. Y. App. Div. 603, 611.

to the deduction of depreciation from cost of reproduction new in order to find a basis for testing the reasonableness of rates.* The principal cases, perhaps, are *Pioneer Telephone & Telegraph Company v. Westenhaver* (1911), 29 Oklahoma 429; *The Minnesota Rate Cases* (1912), 230 U. S. 352; and *The People ex rel. Kings County Lighting Company v. Public Service Commission* (1913), 156 N. Y. App. Div. 603, (1914) 210 N. Y. 479.

In the Pioneer Telephone & Telegraph Company case, the Oklahoma supreme court held that

> every year there is a depreciation in the physical properties of the plant that is not, and cannot be, taken care of by current repair, and, although some of the physical units have been used only for a brief time, such *use* brings about a depreciation; and the reproductive value, new, of such physical units represents the present value only when there is deducted therefrom the amount of annual depreciation.

The court did not in this case, however, specify the measure of the depreciation to be deducted.

The appeals to the United States supreme court in the Minnesota rate cases involved the validity of the orders of the railroad and warehouse commission, together with legislative acts of the state of Minnesota, in prescribing passenger and freight rates. Although the special master had found that depreciation existed, the lower court practically rejected it as applicable to valuation, and the master himself made no allowance on that account in the valuation of the railroads' property, but accepted as a satisfactory offset against depreciation the companies' readiness to serve, knowledge derived from experience, adaptation to the needs of the public, together with physical appreciation of the road-bed, repairs and renewals, depreciation reserve and a reasonable amount of working capital. The supreme court said:

> We cannot approve this disposition of the matter of depreciation. * * * It is also to be noted that the depreciation in question is not that which has been overcome by repairs and replacements, but is the actual existing depreciation in the plant as compared with the new one. It would seem to be

* *Lincoln Gas & Electric Lt. Co. v. City of Lincoln* (1909), 182 Federal 926; *Louisiana R. R. Comm. v. Cumberland Tel. & Tel. Co.* (1909), 212 U. S. 414; *Home Telephone Co. v. City of Carthage* (1911), 187 Federal 637; *Pioneer Tel. & Tel. Co. v. Westenhaver* (1911), 29 Oklahoma 429; *San Joaquin & Kings R. C. & I. Co. v. Stanislaus,* 163 Federal 567; *Spring Valley Waterworks v. City & Co. of San Francisco* (1911), 192 Federal 137; *Des Moines Water Co. v. City of Des Moines* (1911), 192 Federal 193; *Montana, Wyoming & So. R. R. Co. v. Bd. of R.R. Commrs. of Montana* (1912), 198 Federal 991; *The Minnesota Rate Cases* (1912), 230 U. S. 352; *Wyoming & So. R.R. Co. v. Bd. of Commrs. of Montana* (1912), 198 Federal 191; *Bonbright v. Corporation of Arizona* (1913), 210 Federal 44; *People ex rel. Kings County Ltg. Co. v. Public Service Comm. of New York* (1913), 156 New York App. Div. 603, (1914), 210 N. Y. 479; *Public Service Gas Co. v. Bd. of Public Utilities Commrs, of N. J.* (1913), 87 Atlantic 651; *Murray v. Pub. Utilities Comm. of Idaho* (1915), 150 Pacific 47.

inevitable that in many parts of the plant there should be such depreciation, as, for example, in old structures and equipment remaining on hand. And when an estimate of value is made on the basis of reproduction, new, the extent of existing depreciation should be shown and deducted. * * * * * * And when particular physical items are estimated as worth so much new, if in fact they be depreciated, this amount should be found and allowed for. If this is not done, the physical valuation is manifestly incomplete. And it must be regarded as incomplete in this case.

There seems to be, in this case, some question as to whether the court implied a limitation of the deduction to actual as distinguished from theoretical depreciation. It is perfectly clear, however, that depreciation must be determined as to amount, and allowance must be made for it. Otherwise the physical valuation is incomplete and incorrect.

The People ex rel. Kings County Ltg. Co. v. Public Service Commission resulted from the commission's ordering the company to reduce its gas rates. An appeal was taken to the New York supreme court and later to the court of appeals, which is the highest court in the state. As this was the first appeal from a rate decision made by the commission in which depreciation was an issue before the court, a vigorous attack, in behalf of all utilities, was made upon the commission's decision in an attempt to prevent an injurious precedent. The commission held that the

cost of reproduction, new, is not necessarily an indication of present value. Depreciation and deferred maintenance are important factors.

In this case it meant a deduction of $415,198 from an estimated reproduction cost new of $1,902,777, excluding lands. The counsel for the utility argued that since it was conceded that the plant of the company operated at 100 per cent. efficiency, there should be no deduction for accrued depreciation. The decision upon the depreciation issue was made by the appellate division of the supreme court and not by the court of appeals. The appellate division wholly rejects the contention that accrued depreciation should not be deducted from the cost of reproduction new, but it does not commit itself as to whether both functional and physical depreciation shall be included. The commission itself apparently used depreciation in its largest measure.

The prevailing opinion at present, therefore, is to the effect that depreciation must be deducted in determining the just amount on which a public service property may earn. Referring again to the Knoxville case, page 13, it will be seen how well it coin-

cides with good accounting practice when it comes to providing for the depreciation expense. The court says:

> Before coming to the question of profit at all the company is entitled to earn a sufficient sum annually to provide not only for current repairs but for making good the depreciation and replacing the parts of the property when they come to the end of their life. The company is not bound to see its property gradually waste, without making provision out of earnings for its replacement. It is entitled to see that from earnings the value of the property invested is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning. It is not only the right of the company to make such provision, but it is its duty to its bond and stockholders, and, in the case of a public service corporation at least, its plain duty to the public. If a different course were pursued the only method of providing for replacement of property which has ceased to be useful would be the investment of new capital and the issue of new bonds and stocks. This course would lead to a constantly increasing variance between present value and bond and stock capitalization—a tendency which would inevitably lead to disaster either to the stockholders or to the public, or both. If, however, a company fails to perform this plain duty and to exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends upon over-issues of securities, or of omission to exact proper prices for the output, the fault is its own. When, therefore, a public regulation of its prices comes under question the true value of the property then employed for the purpose of earning a return cannot be enhanced by a consideration of the errors in management which have been committed in the past.

Following the Knoxville decision, the principal cases since 1909 not only recognize that the depreciation allowance should include accrued as well as actual depreciation but also hold that it should provide for obsolescence, inadequacy and other functional depreciation. Some of these later cases are *Cedar Rapids Gas Light Co. v. Cedar Rapids* (1909), 144 Iowa 426, 444; *Home Telephone Company v. City of Carthage* (1911), 235 Missouri 644, 665-666; *Puget Sound Electric Railway Company v. Railroad Commission of Washington* (1911), 65 Wash. 75, 81-82; *Cumberland Telephone & Telegraph Company v. City of Louisville* (1911), 187 Federal 637, 654; *Pioneer Telephone & Telegraph Company v. Westenhaver* (1911), 29 *Oklahoma* 429; and *Spring Valley Waterworks v. City of San Francisco* (1911), 192 Federal 137, 184.

Aside from the fact that these decisions cover all classes of public service companies, namely, water companies, street and other railroads, telephone and telegraph companies, gas and electric light and power companies, it is interesting to classify all utilities from their past handling of depreciation and their dis-

tribution of net receipts. Roughly, every such company will come under one of the four following classifications:

First, those utilities which may have been regulated from the beginning, and have been allowed to collect, through the rates charged, a sufficient amount to cover depreciation and to give the investors a fair return upon their investment. A leading valuation engineer, who strongly opposes the deduction for depreciation in fixing rates for service, recently stated to the author that in this case, if a revaluation were being made of such property for a readjustment of rates, it would be entirely equitable to deduct the accrued and collected depreciation from the original cost, or from the cost of reproduction new (the latter basis of valuation, of course, giving to the investors the benefit of the unearned increment in the property), to determine the new value on which a return must be allowed. In this case there would be no question concerning the correctness of the depreciation deduction, for the company would have received from earnings amounts sufficient to keep unimpaired the value of the property invested, which means that the customers of the utility have made good the depreciation and provided for "replacing the parts of the property when they come to the end of their life." Those who argue that such a plant has not depreciated because it is *now* giving as efficient service as an identical new plant must realize that a used machine, to have the same value as an identical new machine, *must yield the same service, at the same cost* and *for the same remaining period of time as the new machine.* It is entirely incorrect to assume that because one machine will yield the same service *at present,* at the same cost, as an identical new machine, the used machine has not depreciated—the same service must be given at the same cost for the same period of time. Too often, it is feared, the valuation expert desires only the balance-sheet aspect of the plant in determining the value of a public service property—that is, its condition at that particular moment as compared with an identical new plant; yet every one at all familiar with accounting knows that for production purposes the element of time, or the remaining economic life of the plant, has much to do with determining the per-unit cost of goods produced or of services rendered. Identical plant, if operated under even approximately similar conditions, cannot give the same service at the same cost for

the same remaining period of time when it is new and after it has been used for, say, ten years. The above assumes also that all necessary or possible current maintenance has been made, in the case of the used plant, from year to year. This means that the provision for deducting depreciation in determining the just amount on which the utility may earn, as provided by the Knoxville and later decisions, is in accord with sound accounting and cannot but work justice in this type of revaluation to both the investors and the public.

Secondly, there are those utilities which in the past have or have not provided for depreciation but have collected more than enough from their customers to have made proper provision for depreciation and also to have paid a fair return to the investors. In either case excessive dividends were paid to investors, and then when the plant was taken over to be regulated, the investors would raise a great cry against deducting depreciation in determining the "just amount." A case in illustration is the Houston Lighting & Power Company, 1905. This company in 1905 issued $500,000 of common stock and $500,000 of 6 per cent. preferred. For the years 1906 to 1913, inclusive, the company paid on the common stock a stock dividend of 100 per cent. and total cash dividends actually withdrawn of $718,125. For the eight years, therefore, the cash dividends averaged approximately 18 per cent. on the original $500,000 of common stock, exclusive of the stock dividend. In 1914 the mayor and commission of the city of Houston ordered an investigation made in expectation of regulation of rates. Jas. E. Allison & Co., St. Louis, prepared the report for the company, and Lyndon & Elrod, Houston, prepared the report for the mayor and commission of the city of Houston. Mr. Allison showed a gross capital entitled to a return of $2,753,584.63. Messrs. Lyndon and Elrod showed a gross value for the property of $2,024,074.66, but they deducted for depreciation some $499,232.87, leaving a capital entitled to a return of $1,524,841.79, or about 55 per cent. of that shown by the engineers for the company. Although the company had made some provision for depreciation on its books, and the plant had been in operation for several years, the engineers for the utility held the opinion that because the plant was in as good operating condition at that moment as an identical new plant no depreciation should be

deducted. It could be no injustice to the investors to require them to acknowledge that the plant they had operated for some years could not turn out the same service at the same cost for the same remaining period of time as an identical new plant, and *any other basis of return* would not be just to the public paying for the service. It appears that this case has never come up for court decision, so it cannot be stated here what final adjustment of rates was made.

Thirdly, there may be utilities which in the past, because of ignorance or for some other cause, have not through earnings provided for depreciation and yet have paid only a fair return to the investors on the amount of capital actually invested in the business. The Knoxville decision is perfectly clear in such a case, holding that if a company "fails to perform this plain duty and to exact sufficient returns to keep the investment unimpaired . . . the fault is its own." Therefore, even in this case the depreciation must be deducted to determine the amount entitled to a return, though it is barely possible in such a case that the equity of the procedure may be questioned.

Fourthly, there may be utilities which in the past have been prohibited by the local authority from collecting the proper provision for depreciation, and, in addition, have paid only a fair return upon the amount actually invested in the enterprise. This condition was found to exist in the case of the Contra Costa Water Company of Oakland, California. In the report of Judge H. M. Wright, standing master in chancery in the district court of the United States for the northern district of California, second division, on *Contra Costa Water Company v. City of Oakland,* some 20.2 per cent. of the original cost of the plant, and amounting to $1,011,000.00, was deducted for depreciation in conformity with the Knoxville decision, yet Judge Wright himself said that this amount "in justice should have been repaid to the company by the community as it accrued." Here is a case where undoubtedly the Knoxville and similar decisions work injustice, but otherwise these decisions may be considered as justly protecting the rights of the public, and as not working unfairly to the public service companies, because the plant which has been in use for a number of years, under even approximately similar conditions, cannot

give the same service, at the same cost, for the *same remaining time* as an identical plant new.

Conclusion

In conclusion, it should be pointed out that, in the case of all the problems discussed in this paper, the prevailing practice is in accordance with the modern accepted principles of good accounting. Wherever any variation from these principles has occurred, whether in the case of the interstate commerce commission and internal revenue bureau in regard to the basis on which depreciation shall be computed, and as to what shall be done in case of capital loss arising from sudden and unforeseen obsolescence, or in the case of courts and commissions regarding the handling of depreciation in the determination of the capital investment entitled to a return in rate-making, these seeming violations of principle have come about because it was expedient and sensible to do what has been done. The importance to the accountant of understanding these problems is obvious. Almost every accountant has become an expert in the regulations of the internal revenue bureau; many are entirely familiar with the classifications of the interstate commerce commission; and some have studied thoroughly this growing problem of rate regulation. No one would suggest that accountants alone can or will solve this problem of valuation for rate-making purposes, but it is the accountant who best realizes the fundamental relation between the balance-sheet and the income statement, and that it is entirely unjust to the public to permit the inclusion of the depreciation cost in the income statement but to exclude its result from the balance-sheet. If capital outlay has expired to such an extent that it must be paid for by and collected from users of the service through the rates charged, and therefore becomes an element in the statement of income for the period, there is no logical reason why that expiration of capital should not be reflected in the valuation of the assets on the balance-sheet. Accountants must acquaint themselves with the economic and legal factors involved, and, in addition, must bring to bear upon the problem the technical knowledge of their profession. There are those who contend that public policy demands violating many of the principles of economics and accounting and the overturning of court decisions, but they have

failed utterly to show in any concrete or reasonable way why their "public policy" should prevail. We hesitate to say that this is simply camouflage to obtain a desired goal. Accounting is based on facts, and accountants must not only uncover and assemble these facts, but must interpret them and use them in the interest and for the protection and welfare of the public.

The American Institute of Accountants*

By Carl H. Nau

It is a pleasure to be privileged to address this first regional meeting held under the auspices of The American Institute of Accountants of this section of the country.

The subject which has been assigned to me is *The American Institute of Accountants;* and since there are accountants in attendance upon this meeting who are not members of the American Institute, it would seem to be fitting briefly—very briefly—to sketch a history of the movement toward solidarity of the accounting profession in this country, leading up to the organization of The American Institute of Accountants which is now its chief exponent.

The men who are familiar with the early history of this movement will pardon me if I address myself for the moment especially to the men who may not be so well informed concerning the early efforts to organize and create a professional body out of the comparatively few and scattered practitioners in this country.

The American Association of Public Accountants was formed in 1887. While its membership was in part composed of practitioners in different parts of the country, it was almost, if not quite, an organization of accountants practising in New York. In 1896 the first so-called C. P. A. law was adopted by the state of New York. This pioneer piece of legislation was doubtless the result of the efforts made by the members of the original American Association of Public Accountants. The next state to adopt C. P. A. legislation was Pennsylvania in 1899. In 1900 Maryland and in 1901 California passed C. P. A. laws, and in 1903 both Illinois and Washington adopted similar legislation. These were the pioneer states in the C. P. A. movement.

In the meantime a few state societies of public accountants had been formed, and in 1904, the year of the world's fair, a congress of public accountants was called to meet in St. Louis. This meeting was attended not only by members of the profession from

* An address delivered at the regional meeting of the American Institute of Accountants, Chicago, November 19, 1920.

different states of this country, but by representatives from British and Canadian societies.

A short time prior to the congress of public accountants held in St. Louis in 1904 a federation of the several state societies of public accountants was formed. There were now in existence two organized bodies of professional accountants, whose membership was not confined to practitioners of a single state.

This condition, however, continued for a short time only, until it was succeeded by an amalgamation of the federation of state societies with the American Association of Public Accountants. The constitution and plan of organization of the American association was changed, and while it had a class of membership consisting of some of the original individual members, known as fellows-at-large, it nevertheless became substantially a federation of the state societies of public accountants whose qualifications for membership complied with the standards set by the American association.

It was during this period that the so-called C. P. A. movement obtained its greatest impetus, with the result that at present every state in the union but one has passed some kind of C. P. A. law. The C. P. A. laws of some states were good; there were others that were not so good; and some were so bad that the American Association of Public Accountants refused to recognize certificates granted under the laws of those states as qualifications for membership in the association.

In the course of time it became apparent that if the profession desired to achieve its proper status in the business community, it could not rely on accomplishing this result by means of state legislation alone. Doubtless the C. P. A. movement has been a powerful instrument for progress in the early development of the profession in this country, but it must be admitted that it contained some inherent weaknesses.

Accountancy is not a local profession, but is nation-wide, even world-wide, in its scope; and as time went on the need for national standards instead of local state standards became more and more apparent. With forty-seven different standards—some good; some indifferent; some positively bad—the mere designation C. P. A. became almost meaningless. In a few states, such as Illinois and New York, the machinery of examination and the

authority for granting C. P. A. degrees was connected with or attached to the state university or other state educational authority, but in the majority of states the administration of the C. P. A. law was reposed in more or less politically appointed boards. Even though the board administering the state law of a given state, at a given time, might set a high standard, there was no assurance that a subsequent board, differently constituted, would maintain such standard. The layman and the business community cannot be expected to discriminate between C. P. A.'s and C. P. A.'s. The mere fact that a person had the right to call himself C. P. A. was not at all conclusive as to such person's professional competence or integrity. After asking: "Is this man a certified public accountant?" several other questions were necessary—"Of what state is he a C. P. A.?" Even this would not be conclusive, because a person who was not qualified to obtain the degree from the state board of a given state at any given time might meet the requirements of the Board at some earlier or some subsequent time. Not only would the state have to be known but also the year of the degree. In fact there was an entire absence of standardization and in only a comparatively few states had the degree of C. P. A. any very real meaning.

The American Institute of Accountants was not formed to supplant the various state societies of certified public accountants, nor was it formed to supplant the C. P. A. laws of the various states. It had its genesis rather in the effort to supplement both state legislation and state societies, and was a partial remedy at least for the well-recognized defects which had developed in our former programme of attempting to establish professional standards and professional solidarity by enacting statutes and conferring degrees. The formation of the institute was an attempt to nationalize the profession, with a centralized control from within itself, in place of the former scattering control which lacked uniformity both of aims and ideals and was influenced quite as much by political as by professional considerations.

In 1916 the American Association of Public Accountants authorized the incorporation of the American Institute of Accountants, membership in which is individual, is based on proper preliminary educational requirements, professional study and training, a standardized technical examination, a period of ap-

prenticeship and practical experience and certain moral requirements.

It is incorporated under the laws of the District of Columbia. An effort would have been made to obtain a national charter for the American Institute of Accountants if it had not been for the fact that, in all probability, its control would not have been vested entirely in the profession itself but would have been subject to interference by politically appointed officers. It was desirable to get as near a national charter as possible, and in the circumstances it was thought that, in view of the laws of the District of Columbia permitting the organization of corporations for educational, scientific, philanthropic and similar purposes the incorporation of the institute under such laws was as close as we could get to a national charter under the present status of the laws of this country.

It was an attempt to create entirely within the control of the profession itself an authority to regulate practitioners. There is, therefore, considerable difference between the American Institute of Accountants and any one of the several state societies of certified public accountants. I might add that, in my opinion, The American Institute of Accountants has already achieved such a standing among the better-informed business functionaries that membership therein is of greater value to the practitioner than the possession of the C. P. A. degree from most, if not any, of the states of the union. It is at present the repository of the best traditions, ideals and aspirations of the profession. Professional and ethical standards are in its keeping and concrete rules of professional conduct are being developed and formulated under its guidance and direction.

Being a member of the American Institute of Accountants is prima facie evidence of the professional fitness and integrity of the practitioner.

In the four years of its existence the institute has succeeded in obtaining the coöperation of thirty-two state boards in adopting the institute's examination as the examination leading to the C. P. A. degree in the coöperating states. This includes even some states whose C. P. A. degree was theretofore absolutely meaningless. The results of these examinations are on record in the office of the board of examiners of the American Institute of Ac-

countants, and when the time shall have arrived that the applicant possesses the experience and other qualifications necessary to admission as an associate of the institute, the person who has passed the institute examination in any one of these thirty-two states can be admitted to the institute without further examination.

Accountants as a body insist that their vocation is a profession as distinguished from a commercial pursuit. No body of professional practitioners can permanently lay claim to a professional status and engage in unprofessional practices. While individual practitioners may occasionally, perhaps persistently, violate the code of ethics of their profession, the development of the ethical precepts and rules of professional conduct adopted by the organized body of any profession must be such as to distinguish it and set it apart from ordinary commercial pursuits.

The government and control of the institute is under the direction of elected representatives from among its membership and the development of its policies and rules is, therefore, subject to the control and the direction of the organized body of the profession itself.

The older professions have their quacks, their ambulance-chasers, and their general malpractitioners. It is too much to hope that similar practices will not at any time disgrace the organized body of our profession. The well-informed public has pretty well learned to distinguish between professional and unprofessional practitioners of the older professions. Already the business public is fairly well informed and daily is becoming better acquainted with what distinguishes a professional practitioner of accountancy from an unprofessional one, as well as what distinguishes a competent from an incompetent and untrustworthy one.

The institute welcomes into its membership every eligible and qualified practitioner in the country. Its ideals are in the keeping of the great body of the profession itself. Every practitioner owes a duty to the profession he loves to participate in its development, not only as a science and a skilled art, but in its ethical precepts and practices.

Every practitioner of accountancy has not only a patriotic duty in joining with his fellow practitioners in helping to shape and direct the development of his profession, but membership in

the institute is of immediate benefit and practical value to him in the pursuit of his vocation. Time is too short to enumerate all the many advantages of membership in the American Institute of Accountants, and I will therefore refer only to one or two.

Three years ago, at the suggestion of and with a large initial donation from one of the leading members of the institute, there was established an endowment fund, the income from which is devoted exclusively to the development and maintenance of the institute's library and bureau of information. Since then the institute has accumulated a professional library of many volumes, the information in which has been thoroughly catalogued and made available for every member.

Perhaps of larger importance than the knowledge preserved upon the printed page is the special knowledge and experience buried in the files and in the memories of individual accountants throughout the country. Any member who desires information or advice upon any question which may arise in his practice can direct his inquiry to the librarian of the institute. If the information is to be found in a book he will be directed thereto. If it is not to be obtained in this manner, his question will be referred to some member or members who are entirely likely to be able to answer his question or inform him of the best practice in respect of the matter. The person answering a question will not know the identity of the questioner; neither will the questioner know who supplied the information.

The institute functions through its officers, members of its council, board of examiners and committees. Among its regular committees are the committees on professional ethics, arbitration, education, federal legislation, state legislation, publication, procedure and subsidiary organizations. I do not name all the committees but a recital of these few names must bring to your mind some of the services which the institute renders, not only to its individual members, but to the entire body of professional practitioners.

THE JOURNAL OF ACCOUNTANCY, which is published under the auspices of the institute, and the monthly and special bulletin service are the vehicles through which the entire membership is kept informed concerning the activities of the institute. The an-

nual meeting and the recently inaugurated regional meetings give opportunity for contact with fellow professionals and furnish means for keeping abreast of the development and practice of the art.

Permit me to close by extending to every person who is not now a member of the institute an invitation to make application for membership therein if he has the necessary qualifications and can comply with the requirements for membership. If he has not yet acquired the necessary qualifications to become an associate of the institute let me urge upon him the desirability of fitting himself for membership therein at the earliest possible opportunity.

Invested Capital from a Legal Standpoint as Applied to Excess and War Profits Taxation*

By Keene H. Addington

I dared to select this subject because it is vital, because it is alive, because it seems to afford the opportunity for a lawyer at least to supplement to some extent the vast amount of accounting knowledge which flows into the final reservoir.

I am going to speak almost wholly on the 1918 law. Of course I cannot say for the 1917 law, what I say in very truth of the 1918 law, that in many respects the 1918 law is one of the greatest laws ever placed upon our statute books. In draftsmanship it is masterly, and I have no sympathy with the man who hides his ignorance with the statement that he cannot understand its terms. It is a great law from other standpoints. From the standpoint of its great flexibility to meet the vast and varied questions which arise under it and go to questions of justice and equality in taxation, it is a great law. As this law is developed principally in your hands and partly in the hands of my profession, I think many of the objections to it will disappear, because in my experience I have yet to see an aggravated case which tended to an unjust and unequal tax, for which this law did not provide, if you were ingenious enough and diligent enough, substantial although perhaps not complete relief. I have been before the department in many cases, and it has been a sort of an obsession with me not to get into the courts. I have not one single case that is going to the courts that the department has not asked me to take there in order to settle some difficult and doubtful legal question.

This law is a great law from another point of view. It is great from the standpoint of the constructive opportunity which it affords to your profession and to mine—constructive opportunity in the organization of new enterprises, creating them on sound bases with the utmost of economy in taxation.

I say without any extravagance of praise that I think, when you measure the entire administration of both the 1917 and the

* Taken from an address delivered at the regional meeting of the American Institute of Accountants, Chicago, November 19, 1920.

1918 laws by the officers at Washington, you will find that we have had an administration there that is quite as wise, quite as broad, quite as intelligent, quite as enlightened and quite as liberal as the law's opportunities will afford.

While I will not say the regulations (which represent the treasury department's interpretation of these laws) are a sacred book, they are at least a work which should command our highest respect. In the main they are sound. They have many errors, like all things human. They have many inadequacies and incompletenesses, like all things which are done by human minds; but in the main those regulations represent genius in constructive effort and are, I think, 95 per cent, the work of your profession rather than of mine. We started a little later than you did. We are pouring our thought only gradually into the development of this law, but I think we are beginning to diffuse new ideas upon the general principles which are now represented by the administration of these laws.

I am going to start tonight with one of the great pivotal sections of the law which relates to the ascertainment of invested capital: section 331 of the 1918 law.

This section, of course, must be construed with section 326, the great section definitive of invested capital; but that section, as you know, directs the manner of the ascertainment of the invested capital of a consolidated company—that is to say, one company organized in 1901, another in 1902, a third in 1903 and a fourth, which absorbed the first three, in 1904. The date to which you go for the purpose of ascertaining the values of your assets and of determining your invested capital is the 1904 date. You practically ignore the other three dates. That is settled. There is no question about that, as you all know.

But assume a corporation that reorganized in 1904, absorbing three previously existing units; assume that the spirit of conservatism prevailed intensely among the organizers of that 1904 corporation. They did the thing which created the right to revalue, but they did not have the power to draw aside the veil that hid the future and know what 1917 would bring in the way of laws, and therefore they did not revalue. I give you this question—it is unsettled today: May such a corporation now revalue and get the value of those assets as of 1904, predicating that re-

valuation upon facts and conditions known to exist in 1904, and taking that revaluation in conjunction with what was the fact, that the officers of that corporation knew at the time they consolidated in 1904 that those assets were worth more than the sum of the stock which they issued against them?

Am I talking radicalism? Am I not suggesting a proposition of paid-in surplus upon a present day valuation as of that date, which is sound both under the law and the regulation? That question has not been decided. It is a question I expect to argue before another spring comes upon us.

Now—suggesting another proposition which is the reverse, in a way—we have three similar corporations; we have a similar consolidation; but we have not in this other consolidation of which I am now speaking the same spirit of conservatism. The directors of that company, when they issued the stock against the three original underlying companies' properties, went to the extreme limit in the matter of valuation; they poured all they could into their appraisement, which was the predicate of the stock issue, and did that both as to tangibles and intangibles. The directors, as you know, always value properties when they issue stock against them.

We find the department looking through the stock to determine whether it was fully paid or not. We find possibly—not probably—in the field an examiner at work in an effort to reduce those values to smaller sums. Your records are in poor shape. Your means of proof are difficult. Is there another answer?

I frankly say there are two sides to the proposition. But, is not the resolution of the board of directors, which fixed that value, binding and conclusive upon the treasury department? How can it possibly be? someone may say. I answer you that where the courts of this country have had to do with such resolutions and such valuations in cases brought by creditors to enforce stock liability, the uniform holding has been that if the valuation has been made in good faith, if it has not been fraudulent, if the valuation has not been grossly and excessively made with knowledge of the excess, it is binding upon the courts and the stock issue is held to be fully paid and non-assessable. That is held in cases in which the litigant is a creditor, a wage claimer. Such litigants are favored in law. The construction is always

liberal in their favor and against the stockholder defending. Why, all the more, might not the same principle apply in a case in which the government is enforcing a tax law, when the construction of the law must be strict against the government, liberal in favor of the taxpayer, and all doubts must be resolved against the government and in favor of the taxpayer?

Thus far I have spoken of section 331 with the idea in mind, although what I have said may apply as well to the second subdivision of 331, that we have to draw a line through the center of the section, because you know there is a date there, March 3, 1917, and in order for your invested capital to be different from that of the underlying companies, if the reorganization has taken place after March 3, 1917, there must be a 50 per cent change of ownership.

Assume your same three companies, one organized in 1901, one in 1902 and one in 1903, each of them having a small invested capital, at least very much below the present day values; each of them of equal size; all of them susceptible of being joined together in one harmonious whole. Now, what can you do? Consolidate them and then revalue all their assets. A simple proposition effecting, not only the economies which flow from consolidation, but a vast economy in the matter of taxation.

Now—along the same lines, a matter of finance—assume a corporation which has a large bonded debt and some floating indebtedness. It is pretty wise financial policy to refund that debt. The invested capital of this company is small, and its tax is large, for its profits are large. Transform that bonded debt and that floating indebtedness into a preferred stock issue and sell enough additional stock, if it is necessary, so that the preferred stock issue represents more than 50 per cent of the whole. Now you have your 50 per cent change of ownership. Now you have your reorganization and now you have created the right, under section 331, to get an up-to-date valuation of your assets and your invested capital is repaired.

I am going to pass section 331 and I am proceeding warily and cautiously, because I am a lawyer and you are accountants, to talk on the question of consolidated invested capital—that is to say, the invested capital of a group of corporations required to consolidate under section 240, which have not been merged in a

single corporation so as to come within the provisions of section 331.

Of course, we must ascertain our invested capital according to the different regulations governing that matter. In order to ascertain the consolidated invested capital of such a group you go to the regulations, principally regulations 864 to 868 both inclusive.

Regulation 864 I believe you will grant is at once the most complicated, the most difficult and the most important single regulation in the book. It is a wonderful regulation; and I want to say that I do not doubt for a moment that it represents sound accounting. Practical experience has shown me that the application of article 864 and the succeeding regulations in at least nineteen cases out of twenty reaches the same result that is reached by the method of ascertaining invested capital which I say is the legal way, the sound accounting method to the contrary notwithstanding.

I want to cite a few illustrations to show you some strange results that take place in following that regulation in ascertaining consolidated invested capital.

Under the regulations, article 860, an operating deficit is none the less invested capital. Money which has been lost was originally paid in and is still invested capital, but a company with an operating deficit, the moment it consolidates with a company having an earned surplus at least as much as the operating deficit, loses its invested capital represented by that operating deficit.

Let us see now what can be done. I am a minority stockholder in the corporation which loses that invested capital, and I do not think it is quite fair to require, because of that consolidation, an increase in my tax, and I complain. I think I have a right to complain, a substantial legal right. But someone may assert that section 240 says these two corporations can apportion the tax among themselves, and it may be that by apportioning the tax my complaint is removed. All right. Let us grant it. The moment you do that you are increasing the tax of the other corporation, and some other Mr. Minority-man steps up with the right of complaint.

From an accounting standpoint you must have held up your hands in holy horror when the treasury department said that an

operating deficit or invested capital money lost still counted as though in the business, so you cannot always reconcile sound accounting and invested capital. Invested capital was a thing brought into the world by this statute without heritage, and I think most people hope it will have no posterity. But at least it is an artificial thing, and congress has not said that invested capital shall be ascertained according to the principles of sound accounting. It has written certain hard and fast rules and it is a question how much they violate your principles, because you must admit that those hard and fast rules in section 326, in their application, at least, do at times violate the very soundest and most hallowed principles of accounting. It is a question of degree.

Assume, for instance, that I am a minority stock-holder in a corporation with an operating deficit, and the majority stockholders, more than 95 per cent, want to sell. There are two purchasers in the field, Mr. Gore here who is in accounting practice and whose business is not a corporation. He would not have to consolidate if he bought. But Mr. Reckitt here, who we will assume is in some other corporation, having a 95 per cent interest in that corporation is also a potential buyer. The moment Mr. Reckitt buys that company he is confronted, and he knows he is confronted, with the obligation to consolidate. Mr. Gore knows that he can buy and not have to consolidate. Mr. Reckitt knows if he buys he is going to lose some invested capital, and that the property is going to carry a higher rate of tax in consequence of the loss of invested capital. He is therefore going to suffer. Mr. Gore knows he is going to lose no invested capital. Therefore the corporation of Mr. Reckitt can afford to offer more for the business, as his taxes will be less. You see this regulation by adhering to accounting principles does a collateral harm—it affects the market value of stock.

I say that this regulation, wonderful in its conception, magnificent in its intricacy, which works out beautifully in most cases, has in its essence certain unsound principles which ought to be eradicated. You might think that this is an unusual case. I assure you it is not.

A gentleman came up here from Cincinnati this morning and brought this very case into my office this morning, although I have had a similar situation before in another case. Unfortu-

nately, some of these propositions I am not permitted to argue at Washington because other propositions are granted by the department, I get what I consider a fair tax and then quit. I am not in sympathy at all with any effort to reduce a tax to the very least sum. I feel that a prosperous corporation should pay large taxes, and that has been the spirit of my clients. Therefore when I reach a point where I think the tax is just, I stop, even though from a professional standpoint I may want to go on and argue other questions.

Perhaps you want me to tell you how I would ascertain invested capital? Ascertain the invested capital of my several units and add that together; and even though the principles of sound accounting are not observed by that simple process, I assert the principles of sound law are maintained.

Now what is the practical value of a proposition of this kind? When you have such a case, if I may venture the suggestion, try my method and see if you have lost any invested capital as compared with the effect of consolidating according to sound accounting principles. If you find you have, maybe you have got a point that is worth using.

In other words, where the principles of sound accounting and sound law do not coincide, I assert that the principles of sound accounting must yield. Congress was a very determined parent. Congress made up its mind that the commissioner had to enter into a matrimonial alliance with somebody, and so it took Mr. Commissioner and Miss Law by the hand and led them to the altar, and the commissioner is married to sound law and has no right to flirt with Miss Accounting no matter how winsome her charms or radiant her beauty.

Before I leave that point I want to show you a single expression of congress which rather supports my view that congress meant that the simple layman-like method of adding these several units together is the way to compute consolidated invested capital. You will find it in section 240, which determines when there must be a consolidation of returns. Incidentally, there is an expression there with respect to consolidated invested capital, and in regulation 864 the commissioner does not mention it. This section provides that in the event of the consolidation of certain corporations, and if it is found in the examination of the return that

one of them a corporation organized after August 1, 1914, has derived more than 50 per cent of its income from gains, profits, commissions and so on, made on war contracts, in such case the corporation so organized which has made such profits shall be taken out and assessed on the basis of its own invested capital and net income, and the remainder of the affiliated group shall be assessed on the basis of the remaining consolidated invested capital and net income.

In other words, this section first provides something that is to come in, then something that is to go out and then that there is to be a remainder. Do you assume for a moment that congress thought one sum would go in and another sum would go out and a different sum would be left? I do not think so for a moment. I think that there is a clear although incidental expression by congress to the effect that you must determine the invested capital of each company and add these amounts together, and that that shall be your consolidated invested capital according to law, whatever it may be according to sound accounting.

I am going to pass section 330 and discuss for a moment with you an important point with regard to tangibles and intangibles.

The question of what is a tangible and what is an intangible of course is important when you have a proposition of wiping out the excess of intangibles over 25 per cent under the 1918 law and 20 per cent under the 1917 law; and the more tangibles you can sustain as being in your capital stock issue, the better you are off. Likewise, this question becomes important under the present rulings of the department with regard to paid-in surplus. Under the present rulings paid-in or earned surplus may not be predicated upon intangibles. I do not think that is correct, although it is the present ruling, and I understand that there may be handed down shortly a decision to the contrary effect.

I have had occasion to go into this question fully and have found an interesting situation in the law as laid down by the supreme court of the United States in various cases. When you sum up the result of all those cases, you find practically that, before section 325 was enacted, tangible property consisted principally of physical assets. Everything else was intangible. Yet the supreme court of the United States in one case said that when you combine various properties into one company, you thereby

create a new asset, intangible in character, but perhaps worth more than all the properties standing alone before the consolidation. However, the definition of "intangible" before section 325 was very narrow. Congress saw that it was too narrow a definition, and I believe meant to give us a broad definition and defined the term "intangible property" as patents, copyrights and so forth and so on. In 1917 patents were tangibles, and curious questions arose as the result. Questions of paid-in surplus and all sorts of questions came up and the incongruous situation exists that the commissioner has to administer patents as tangibles for 1917 and intangibles for 1918. Today we have the following definition:

"The term 'intangible property' means patents, copyrights, secret processes and formulæ, goodwill, trade-marks, trade-brands, franchises, and other like property."

"The term 'tangible property' means stocks, bonds, notes and other evidences of indebtednesses, bills and accounts receivable, leaseholds and other property other than intangible property."

I simply mention this point because it took one of my assistants a month to go through all the cases and to get down to the proposition of what was a tangible and what was an intangible. The conclusion from that investigation is that practically everything except those things specifically named in section 325 as intangibles are in reality tangibles.

I pass now to the last section I shall discuss, namely, 326, which is the great yard-measure for the determination of invested capital.

Again I want to suggest a question which affords an idea of some of the vast number of constructive opportunities afforded by this law. We all know that before a corporation is organized it frequently happens that the incorporators do much work, and by that work produce things of value. In the old days we would capitalize freely the result of that work and the assets acquired. We are not, however, quite so free to do that now because of the danger of imposing a personal income tax on the incorporators. And if we do not capitalize such assets we know at the same time we are losing what would be valuable for that new corporation in the way of invested capital.

Now, how can you secure the invested capital and not the personal income tax? The answer is simple in most cases. You

can organize your corporation and have your incorporators pay for their stock in cash, or in such manner as may be provided, and then, preserving to these incorporators what they have done as individuals, have them transmit it to the organization as a gift, thus creating a paid-in surplus, non-taxable as personal income. I simply throw that out as a suggestion.

It frequently happens that field examiners go out and find some poor, old corporation, organized in the days before the flood, whose invested capital, because of the accident of time or form of organization is low enough. Then they start in and apply rates of depreciation to the assets which were turned in at the time of the incorporation and, when they are through, what has the poor corporation left?

Section 326 does not say a word about the right of the department to reduce the value of an asset which has originally been paid in as payment for stock—not one single word, and the department recognizes that it does not say so. It recognizes also that it has no right under section 326 to make any deduction. The reason for holding that an operating deficit is still invested capital is that very reason, as I understand it. In other words, there is no provision that in the event of a loss of original and invested capital, the amount of the loss can be deducted.

I am a great friend of the excess-profits tax law. I am sorry we have to have so much money, but if we must have it I do not know any better way of raising it than this way; and I think that law will become more popular as it is better understood and better applied. The great harm that is being done in this country by taxation does not come so much from the excess-profits tax which, as I have observed it, corporations have been able to pay and still go on in prosperous ways, but it arises more from the large surtaxes, because they reduce the initiative of men of means who usually are men of brains, who frequently are our captains of industry. When such men realize that if they make a profit it is largely to be taken from them and turned in to the government, they hesitate to chance their capital upon an enterprise in part speculative.

It seems to me from what I have heard in Washington that the tendency is—and certainly it would seem to be sound economics—to have the excess-profits tax stand and the income tax

and surtaxes reduced, so that capital will not be inert and idle but will be willing to step out and take its chances in the world again, paying heed to the needs of national industry and our national resources and pouring itself into them. The moment you stop initiative in individual investment, you strike at the heart of national prosperity.

Our country has become what it is largely because great rewards have been offered to capital for its investment. It may always be that capital to an extent will be over-rewarded. You must over-reward capital so that it can lay up against contingencies which are largely unexpected, in order that it may advance conservatively and use its best efforts in the upbuilding of industry. The moment you stagnate capital by high surtaxes, you stop the development of national prosperity.

Summary of Tax Exemptions—Liberty Bonds and Victory Notes

By Edward H. Moeran

Loan	Date Act of Congress	Date of Bonds	Interest Rates	Interest Dates (15th of Month)	Redemption and Maturity Dates	Short Titles	Conversion Privilege Expired
			Original Issues				
A 1st	April 24, 1917	June 15, 1917	3½%	June and Dec.	1932/1947	1st 3½s	
B 2nd	Sept. 24, 1917	Nov. 15, 1917	4 %	May and Nov.	1927/1942	2nd 4s	
C 3rd	April 4, 1918	May 9, 1918	4¼%	Mar. and Sept.	none/1928	3rd 4¼s	
D 4th	July 9, 1918	Oct. 24, 1918	4¼%	April and Oct.	1933/1938	4th 4¼s	
E 5th	Mar. 3, 1919	May 20, 1919	3¾%	June and Dec.	1922/1923	Victory 3¾s	
F 5th	Mar. 3, 1919	May 20, 1919	4¾%	June and Dec.	1922/1923	Victory 4¾s	
			Conversions				
G	1st 3½s into rate of 2nd Loan		4 %	June and Dec.	1932/1947	1st 4s	May 15, 1918
H	1st 3½s into rate of 3rd Loan		4¼%	June and Dec.	1932/1947	1st 4¼s	Nov. 9, 1918
	1st 4s into rate of 3rd Loan		4¼%	June and Dec.	1932/1947	1st 4¼s	Unexpired
J	1st 3½s into rate of 4th Loan		4¼%	June and Dec.	1932/1947	1st–2nd, 4¼s	April 24, 1919
K	2nd 4s into rate of 3rd Loan		4¼%	May and Nov.	1927/1942	2nd 4¼s	Unexpired
L	Victory 3¾s into Victory 4¾s		4¾%	June and Dec.	1922/1923	Victory 4¾s	Unexpired
M	Victory 4¾s into Victory 3¾s		3¾%	June and Dec.	1922/1923	Victory 3¾s	Unexpired

Notes re Conversions:

1st 4s and 2nd 4s were convertible into the rate (if higher) of the *next* subsequent issue; there are, therefore, no 1st 4s converted into 1st–2nd 4¼s, nor are there any 2nd–2nd 4¼s.

The privilege of converting 1st 4s and 2nd 4s into 1st 4¼s and 2nd 4¼s, respectively, originally expired Nov. 9, 1918, but the privilege was reopened Mar. 7, 1919, and is still in force.

The 3½s may still be converted into long term bonds of higher rate subsequent to the 5th loan *it issued* prior to the termination of the war.

Tax Exemptions

All of above issues exempt from federal *normal* income tax, state taxes (except estate or inheritance taxes) and local taxes.

All of above issues qualify as admissible assets for purposes of invested capital.

None of above issues exempt from estate or inheritance taxes (federal or state).

A E and M full exemption from federal income surtaxes and profits taxes.

F and L no exemption from federal income surtaxes and profits taxes.

B C D G H J and K—limited exemption from federal income surtaxes and profits taxes as follows:

* Aggregate of *B C D G H J and K* (also treasury certificates of indebtedness and war savings certificates)	$ 5,000
** Aggregate of *B C D G H J and K* re interest after Jan. 1, 1919, until 5 years after termination of war	30,000
** Aggregate of *B C D G H J and K* re interest after Jan. 1, 1919, *conditional* upon original subscription to and continued holding at date of tax return of 1/3 as many notes of Victory loan and extending through life of Victory loan	20,000
*** Aggregate of *B C G H and K* re interest after Jan. 1, 1918, until 2 years after termination of war, *conditional* upon original subscription to and continued holding at date of tax return of 2/3 as many bonds of 4th Liberty loan.....	45,000
*** D. Until 2 years after termination of war.....	30,000
*** J. Until 2 years after termination of war.....	30,000
Total maximum exemption from federal income surtaxes and profits taxes....	$160,000

* By virtue of 2d Liberty bond act Sept. 24, 1917.
** By virtue of 2d Victory Liberty loan act March 3, 1919.
*** By virtue of supplement to 2d Liberty bond act Sept. 24, 1918.

Notes re Tax Exemptions.

The above exemption of $5,000 marked * should not be confused with the exemption from federal income surtaxes and profits taxes of $5,000 bonds of the War Finance Corporation by virtue of war finance corporation act of April 5, 1918.

In New York state it is held by the taxing authorities that interest from United States obligations may not be excluded in computing corporation franchise taxes *based upon* net income or gross earnings, on the theory that the latter are not the things taxed but merely the measures of the tax. On the same theory the principal of or interest from United States obligations may not be excluded in computing "fair market value" or "capitalized net earnings" for purposes of the federal capital-stock tax.

In a decision of the court of appeals of the state of New York handed down November 23, 1920, in the case of *The People of the State of New York on the relation of Alpha Portland Cement Co. (a foreign corporation), Respondent, vs. Walter H. Knapp and others, Appellants,* dealing with certain phases of the New York state franchise tax, the opinion of Justice J. Cardozo contains the following statement:

"I think, therefore, that in substance, though not in form, in tendency, though not in name, this tax is equivalent to a tax upon relator's income."

How far reaching the court's conclusion with respect to this particular point may prove to be remains to be seen.

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EDITORIAL

Classification of Profits on Investments

The January issue of The Journal of Accountancy contained an editorial entitled *Classification of Profits on Investments,* which seems to have aroused a good deal of interest and some opposition. Among the adverse comments received is a letter from John Bauer, who for many years has been an occasional and valued contributor to The Journal of Accountancy.

So that the matter may have full discussion we reproduce the substance of Mr. Bauer's letter herewith:

The leading editorial of the January number of The Journal of Accountancy took a position opposed to the recent decision in the case of *Brewster v. Walsh* by the federal district court of Connecticut, holding that profits realized from the sale of investments or capital assets are not income and, therefore, are not taxable under the sixteenth amendment of the constitution.

The decision raises fundamental issues which should be thoroughly discussed in their various economic, accounting and legal aspects before a final determination is made by the supreme court of the United States. The issues are such as naturally to call forth uncompromising opinion in favor of or against the decision, and it is hardly safe to say what position the economists and accountants in general would take. I do believe, however, that the editorial brushed aside rather ungenerously the opposing opinion which might favor the decision. I doubt whether there is a single economist who approaches the problem from the standpoint that "whatever is spent is ipso facto income," but there is a large group of economists who would consider the decision to square with sound economic principle.

The question at issue is, of course, one of economic fact and should be decided on that basis. As a nation, we decided upon a federal income tax and amended the constitution for that purpose. Any tax, therefore, authorized by congress should be limited to income and should not be levied on any other basis. The question, therefore, is: What is income? Is there a fundamental distinction between capital and income? Is increase in capital value income?

The economists who are in accord with the *Brewster* decision base their position upon the fundamental relation of capital and income. They

hold that capital value represents capitalized income, that the value of an investment is equal to the present discounted value of the expected earnings from the property. Capital value increases or decreases with the increase or decrease in expected income. Income discounted at the market rate of interest is capital value. The relation of income and capital is that of cause and effect. An income tax is undoubtedly levied on the cause, but can it be levied also on the effect? If there is an increase in income, the addition, as such, would unquestionably be taxable as income, but may also the consequent increase in capital be counted as income and be subject to an income tax?

The general view just expressed may be illustrated. Suppose A had real estate that had cost him $100,000 and, on that basis, had brought a net rental of $8,000 a year. Assume then that rentals have doubled and promise to continue at $16,000 a year. On this basis the property is worth $200,000, and it has this actual value to the owner whether it is sold or not. There can be no question that the increase in rental from $8,000 to $16,000 a year is additional income and subject to tax, but is the consequent increase in capital value from $100,000 to $200,000 also to be counted as income?

Under the law, such increase in capital value is not taxable until realized through sale or exchange for other property, but does this limitation have any real bearing on the issue? Suppose A sells for $200,000; all he can do is to reinvest, and on ordinary investments will again receive an income of $16,000 a year which would be taxable. It is because of this doubled income that he has a double capital value. The income tax as such would reach the additional income, but would leave intact the resulting increase in capital.

It is true that A has increased his net worth by $100,000, but this is due to the fact that he has increased his income from $8,000 to $16,000 a year. If the additional income is taxed, A pays his full burden from the standpoint of an income tax. If, however, he is taxed also on $100,000 of the value of his investment, he is taxed on capital and not on income. Moreover, if he is taxed on the $100,000 increase in capital the government encroaches on his investment and reduces his future income. After paying the taxes at prevailing rates, he would only have $160,580 to reinvest instead of $200,000 for which he sold the property. His new investment, therefore, at 8% would bring only $12,846 a year instead of the previously established income of $16,000 a year.

The tax on the increase in capital value is a capital tax and not an income tax. Its result is to reduce capital and to diminish the future taxable income. If the increase in income is taxed as income, the corresponding increase in capital value cannot be taxed also as income.

It may be urged that the purpose of the income tax is to tax people on the basis of their ability to pay, and that the increase of $100,000 in A's net worth represents such an increase in ability. It is true that the income tax law is designed to tax according to ability, but ability may be measured in one of two ways: (1) according to income, or (2) according to capital. The sixteenth amendment provides for the taxation of income and not of capital. A's ability to pay was measured in the first instance by $8,000 a year with the capital value of $100,000, and then by $16,000 a year with the capital value of $200,000. The tax should rest, therefore, upon the income and not also upon the resulting capital value.

The issue may be approached also from the standpoint of changes in price level to show that an increase in capital value is not income. Since 1914, prices in general have doubled, so that the present equivalent in money income, or money capital, is twice that of 1914. Suppose, then, that A's property was worth $100,000 in 1914 and brought $8,000 a year; then to maintain the equivalent at the present time it must be worth $200,000 now and bring $16,000 a year in income. If he sells and is taxed for the $100,000

so-called profits, obviously he is left worse off than in 1914, and the government has seized some of his capital and has left him a smaller relative income than he had before.

The change in price levels is, of course, the chief factor affecting increases in investment value since 1913, from which date the so-called profits on the sales of capital assets are computed. During this period, in practically all cases, the sale of investments has resulted in so-called profits, and the tax on the amounts has resulted in diminishing the individual's future income and reducing his actual capital. The matter, however, should be viewed not only from the taxpayer's standpoint, but also from the viewpoint of the government. The purpose, of course, has been to tax the nation's income and not something else, but if we count as income the increase in capital value that has taken place since 1913 because of the shifting in price levels, we are manifestly pulling ourselves up, as a nation, by our bootstraps. By this procedure we count not only the nation's actual income from the operation of its farms, factories and industry, but we count also the general increases in property values that have followed the rise in price levels. We count as income the effect of price levels upon capital values and thus cut into our actual capital.

The analysis set forth, I believe, is entirely in accord with general accounting practice. In any event, however, it is the primary function of the accountant to determine what are the facts and then record them according to suitable classification. If the increase in capital assets is not income, the accountant will have no difficulty in showing this fact, as he would be able to show the increase as income if it were properly so counted.

The general purpose of accounting may be stated to keep a record of investment and income. My belief is that very few accountants would include in the income statement of a period profits realized from the sale of investments or capital assets. Such profits would almost invariably be credited to *surplus* and not to income account. The latter would include gains realized through operation of plants and other returns from business assets, but it would not include any adjustment in the value of capital items.

The practice just described of crediting so-called profits realized on the sale of capital assets to surplus and not to income is followed in the various classifications of accounts prescribed by the interstate commerce commission in the case of the railroads and other public utilities under its jurisdiction. It is carried out, also, I believe, by all the classifications of the various state public utility commissions and would be accepted by most competent accountants.

In ordinary business, the terms "income" and "profits" are used loosely, and there is, in such use, no guide in the present issues. The ordinary business man understands little of accounting, and there could be no serious purpose to base accounting classifications upon the ordinary business man's views. We have to deal in accounting and economics with technical matters which should be determined from a scientific standpoint and not according to loose every-day usage of terms.

I agree fully with the editorial view that the broadest possible interpretation should be given to the term "income," leaving determination of the forms of income to be considered by congress. But shall we go so far as to change the entire purpose of the sixteenth amendment? Shall we stretch the meaning of income to include capital, and shall we levy a capital tax under the term of "income tax"?

These are far-reaching questions, and I firmly believe that it is much better policy to stick to an income tax until we actually decide upon a capital levy. These matters fortunately can now be squarely placed before the supreme court of the United States in passing upon the *Brewster* case and similar cases now pending.

The editorial in question was reprinted by the New York *Evening Post,* and a reply to the editorial from Mr. Bauer was published in that paper. The substance of Mr. Bauer's letter to the *Evening Post* was practically the same as that of his letter to THE JOURNAL OF ACCOUNTANCY.

Following the publication of Mr. Bauer's letter in the *Evening Post* a communication from George O. May was printed in that paper, and as it deals with the matter comprehensively we reproduce his comments:

Referring to the editorial article on the case of Brewster against Walsh, which you recently quoted from THE JOURNAL OF ACCOUNTANCY, I believe Judge Thomas felt constrained by decisions of the supreme court to hold that profits on the sale of investments were not income. Inasmuch, however, as your correspondent, Mr. Bauer, suggests that such a decision is also required by sound economic principles, it may be permissible to discuss the question on its merits, ignoring for the moment the effect of any past legal decisions.

Approaching the question in this way, I would like to suggest:

(1) That even economists are by no means all agreed in the support of the position taken by Mr. Bauer.

(2) That the best opinion among those qualified to express opinions, apart from the economists, would not support the position that increases in capital assets are never income. And

(3) That the injustice and other evil consequences that would ensue from such a ruling would be far greater than could flow from the opposite decision.

In considering this question it must always be borne in mind that it is not the wisdom of taxing such profits, but the right to tax them, which is involved. The sixteenth amendment gave congress the right to tax incomes from whatever source arising: the plural itself is suggestive. Certainly the amendment does not seem to contemplate any abstract but rigid economic concept as the limit to be placed on congress, nor does it specify the group of economists whose interpretation shall prevail.

It must also be remembered that there is a converse to the proposition, and that if increments of capital are in no circumstances income, decrements of capital cannot be allowed to enter into the computation of income. If, therefore, a machine is employed for ten years in the production of an article and then sold as scrap, the net income would require to be computed without any allowance for the difference between the cost and the scrap value of the machine.

Furthermore, increments and decrements of capital may arise from different causes, involving materially different considerations; these may conveniently be illustrated by the cases of:

(a) The rise in value of a bond bought at a discount between the date of purchase and maturity, or, conversely, the decline of a bond bought at a premium.

(b) The rise or fall in value of a bond due to a fall or rise in interest rates.

(c) The rise or fall in the value of a plant due to a general change in price levels.

If the question whether profits from appreciation of capital assets should be treated as being sometimes or always income were referred to a conference, in which in addition to economists there would be representatives

of accountants, actuaries, bankers, bond buyers and business men generally, I think there would be practical unanimity among all except the economists in favor of the proposition that increments or decrements in class A, including all those due to conditions inherent in the form of investment, are both in theory and practice in the nature of income, and I believe this proposition would find very considerable support from the economic group; indeed, at the recent meeting of the American Economic Association at Atlantic City I found that there was at least a very respectable body of economic opinion in favor of the view that all increases of capital assets are income.

Turning to class B—appreciations or depreciations representing increase or decrease in exchange value due to external causes—I think a wide range of opinion would be found to exist, with a middle group suggesting that in theory whether appreciation or depreciation should be included in computations of income might depend on the motive of the taxpayer; that is to say, whether he was buying primarily as an investor for the sake of annual income or as a speculator or trader.

In the case of increments or decrements of the third class—changes in money value of an asset due solely to a change in the value of money and not containing any element of increase or decrease in exchange value—I think a majority would probably agree that in theory such increments or decrements did not enter into the determination of income, and that if it were possible to segregate them they should be excluded from the operations of an income tax.

If, then, the body should proceed to make concrete recommendations, I believe it would hold that it was impossible to administer an income tax on a basis which would require the treasury department to determine the motives of taxpayers and analyze the causes of every appreciation or depreciation of a capital asset. It would also, I believe, hold that it was better for the commonwealth that a few taxpayers should be taxed on profits which theoretically might contain an element of increase of capital rather than that it should be put in the power of congress to determine income without any deduction for the exhaustion of capital necessarily involved in the production of income.

Holding these convictions, I shall share the regrets of THE JOURNAL OF ACCOUNTANCY if now, after hundreds of thousands of transactions have taken place, and hundreds of millions of taxes have been paid under a law taxing profits on the sale of capital assets, and allowing losses on such sales as a deduction from taxable income, the supreme court shall feel constrained on legal grounds to hold such a law unconstitutional.

If I could be privileged to attend such a conference as I have mentioned, I should be tempted to remind it of the testimony before the British royal commission on income tax of Dr. J. C. Stamp, who combines a grasp of theory, practical experience and broad common sense in an extraordinary degree. In his testimony he suggested that—

> "The wanton and bigoted way in which persons obsessed with certain mathematical ideas urge the sacrifice of all practical points to their lust for algebra would be a serious public danger if their influence became great."

I would suggest, more mildly, that it would be unwise to attach undue weight to the insistence of certain economists on the line of fundamental distinction they would seek to establish between capital and income, especially as the fundamental difference most apparent to the lay observer is the difference in views among the economists themselves.

We question Mr. Bauer's view that not a single economist holds that "whatever is spent is ipso facto income," but we would

point out that in our editorial we merely said that those who would approve the decision would include any such economists. Certainly there is a considerable number of economists who hold that whatever is not spent is not income. It would seem to follow, therefore, that whatever is spent is, in their view, income. "Are savings income?" is, we believe, a favorite topic of debate among economists.

American Institute of Accountants

REGIONAL MEETING AT BOSTON

Morning Session

The first regional meeting of New England members of the American Institute of Accountants was held at the Copley Plaza Hotel, Boston, Massachusetts, December 8, 1920.

Waldron H. Rand, of Boston, acting as temporary chairman, called the meeting to order at 10:30 A. M., and introduced Rev. J. Ralph McGee, who offered prayer.

Mr. Rand then addressed the meeting, extending a welcome to those present, and stated that it was the object of the gathering to bring together members of the American Institute and others interested in accounting who for various reasons were unable to attend the annual meeting of the American Institute.

Following Mr. Rand's address, Frederick Bond Cherrington, of Boston, was elected permanent secretary, and J. Edward Masters, of Boston, was elected permanent chairman.

Mr. Masters, upon being inducted into office, expressed his gratification at the honor conferred, and explained at some length the reason for the efforts made by the committee to bring about the development of the regional idea.

George Lyall, of Boston, president of the Certified Public Accountants of Massachlusetts, was next introduced, and read a paper on *Accountancy in New England.*

The next speaker was Homer N. Sweet, of Boston, who addressed the meeting on *The Treatment of Commitments of Purchasers, etc., on a Certified Balance-Sheet.*

A discussion by James N. Willing, of Boston, followed.

Carl H. Nau, of Cleveland, president of the American Institute, was then introduced by the chairman, and read a paper on *The American Institute.*

The next speaker was A. P. Richardson, secretary of the American Institute, who extended an invitation to all accountants present to make application for membership in the American Institute, if not already connected therewith.

A committee of five was appointed by the chair to decide upon the time and place of the next regional meeting and instructed to report at the afternoon session. This committee consisted of Messrs. Rand and Lyall (Massachusetts), Fisher (Rhode Island), Jordan (Maine), and Vannais (Connecticut).

The chairman, in announcing the closing of the morning session, extended an invitation to all present to attend luncheon as the guests of the Certified Public Accountants of Massachusetts.

Afternoon Session

The meeting was called to order at 2:10 P. M., and J. Hugh Jackson, assistant professor of accounting at the Harvard graduate school of business administration, read a paper on *Some Problems in Depreciation.* At the close of his address a discussion of the paper was led by Chester A. Jordan, of Portland, Maine,

L. G. Fisher, of Providence, Rhode Island, then read a paper upon *Inventory Values at December 31, 1920.* Discussion of this paper was led by W. H. Moies, of Providence.

J. Pryse Goodwin made a motion that it be recommended to the American Institute of Accountants that the ruling of the reviewing board in Washington in relation to election of corporations to use cost or market values in inventories be approved, and that the commissioner of internal revenue be urged to give official sanction to it.

This motion was carried.

Mr. Rand, acting as chairman of the committee appointed at the morning session, announced that the committee had selected the third Wednesday in June and Providence, Rhode Island, as the time and place for the next regional meeting, and stated that a committee, headed by Lewis G. Fisher, assisted by Alfred P. Ward, had been selected. This committee was to be given the power to add to its number.

The report of the committee was accepted.

A vote of thanks was extended to the members of the committee, who had given their services in making the convention a success, and a vote of thanks was also extended to the Certified Public Accountants of Massachusetts for their hospitality.

The meeting adjourned.

Evening Session

The evening session consisted of a banquet at 7:30. F. R. C. Steele, of Boston, acted as toastmaster.

Addresses were made by Carl H. Nau, of Cleveland; A. P. Richardson, of New York; Waldron H. Rand, of Boston; Chester A. Jordan, of Portland, and Herbert F. French, of Boston.

Lybrand, Ross Bros. & Montgomery announce the opening of an office at 820 L. C. Smith building, Seattle, Washington.

Herbert J. Brooke & Co., Chicago, announce that Charles H. Brooke has been admitted to partnership in the firm.

John K. Laird & Co. announce the opening of offices in the Columbus Savings & Trust building, Columbus, Ohio.

Smith, Brodie & Lunsford announce the opening of an office at Two Republics Life building, El Paso, Texas.

Income-tax Department

Edited by Stephen G. Rusk

This month's quota of treasury decisions contains some of exceptional interest at this time, and we commend to special attention treasury decisions 3108 and 3109.

These two appertain to inventorying at the end of the year 1920. It will be remembered that heretofore after a taxpayer had chosen his method of inventorying, either at "cost" or "cost or market," whichever was lower, it was impossible for him to adopt another method without making an appeal to the commissioner of internal revenue. Because of the great shrinkage in values that took place during the latter part of 1920, and the consequent shrinkage of profits, considerable pressure has been brought to bear upon the government to modify its ruling with respect to inventorying. These treasury decisions, undoubtedly, result from the consciousness of the government officers that some relief must be given to taxpayers so that it will be possible for them to inventory in such a manner that the losses that actually have taken place can be reflected in the income-tax return.

Many taxpayers who adopted "cost" as their basis of inventorying would have been seriously embarrassed if they had been obliged to continue inventorying at "cost" when their cost was so much in excess of the amount that they could hope to obtain for the material they had on hand at the end of 1920.

Treasury decision 3107 deals at great length with depletion of mines, oil and gas wells, and through this decision articles 201 to 224 of regulations No. 45 have been amended. The so-called amendments are, in reality, an entire revision of the language of the said articles. The regulation relative to depletion has been clarified by these treasury decisions in a most able and comprehensive manner. A careful comparison of the several articles will strongly impress one with the thought that has been put into this treasury decision. There are few who doubt that the excess-profits feature of the income-tax law will be repealed, as it probably will be found inadequate for the purpose it was intended to serve, namely, that of producing revenue. Even if it were adequate, the chances are that it would be repealed because of the heavy burden it places upon business. On its negative side, however, the excess-profits tax law has been of great value, in that it has caused to be disseminated certain accounting rules and principles that would have taken accountants years to promulgate to the same extent. Among the more important ones the writer would place the rules for computing depletion of natural deposits and the rule for distinguishing between cash dividends and stock dividends.

Other treasury decisions contained in this issue of The Journal of Accountancy have a more limited interest than the three above mentioned, but are worthy of a careful reading.

Income-tax Department

(T. D. 3102, December 24, 1920)

Income tax—Revenue act of 1918—Decision of court

UNITED STATES CITIZENS RESIDENT IN PHILIPPINE ISLANDS—LIABILITY TO TAX

A citizen of the United States who resided in the Philippine Islands during the entire year 1918 is subject to the tax imposed by the revenue act of 1918.

The appended decision of the district court of the United States for the northern district of California, southern division, in the case of *W. H. Lawrence v. Julius S. Wardell, collector,* rendered November 16, 1920, is published for the information of internal revenue officers and others concerned.

SOUTHERN DIVISION OF THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF CALIFORNIA, SECOND DIVISION

W. H. Lawrence, plaintiff v. Julius S. Wardell, collector of internal revenue for the first district of California, defendant

RUDKIN, *district judge.* The sole question presented by the demurrer in this case is this: Is a citizen of the United States who resided in the Philippine Islands during the entire year 1918 subject to the tax imposed by the revenue act of that year?

Section 1 of the act of 1916 imposed a tax upon the entire net income received by every individual "a citizen or resident of the United States" and upon the entire net income received by every individual "a non-resident alien" from all sources within the United States. This act was amended in 1917, but the amendment is not deemed material to our present inquiry. Section 210 of the act of 1918 imposed upon the net income of every individual a normal tax in lieu of the taxes imposed by the acts of 1916 and 1917.

From those provisions it will be seen that the tax is imposed on citizens of the United States regardless of their place of residence, or residents of the United States regardless of their citizenship, and upon the income of non-resident aliens from sources within the United States. Nothing is found in any other provision of the act in conflict with this view. Thus section 260 of the act of 1918 refers to individuals who are citizens of any possession of the United States, but not otherwise citizens of the United States, and the following section provides that returns shall be made by individuals who are citizens or residents of Porto Rico and the Philippine Islands or derive income from sources therein, but makes no reference to citizens of the United States residing in the islands. For these reasons I am of the opinion that the tax was properly imposed and the demurrer is therefore sustained.

(T. D. 3105, December 27, 1920)

Income tax

Contributions to Red Cross and other recognized war organizations deducted in returns for the year 1918

In order to obviate the necessity of filing amended returns for the year 1918 by corporations which filed their completed returns prior to the publication of the opinion of the attorney general and claimed deductions on account of contributions to the Red Cross and other recognized war organizations, corporations which filed their returns and claimed such deductions prior to the issuance of treasury decision 2847, should file immediately with the collector of internal revenue a statement showing the amount of such deductions claimed, the amount of the net income as reported and as corrected, and the amount of additional tax due by reason of the erroneous

claiming of the deduction. The total amount of additional tax shown to be due by such statement should be paid at once, together with interest on each instalment from the original due date.

In cases where this procedure is followed amended returns will not be required, and the statements referred to when received by this office, through the collector's office, will be filed with the original returns in lieu of amended returns.

Failure to file a statement and make payment of the additional tax by a corporation will subject it to the 5 per cent penalty with interest for negligence when its return is audited and the deduction on account of contributions is disallowed.

(T. D. 3107, December 29, 1920)

Income tax

Deductions allowed—Depletion—Articles 201, 202, 203, 204, 205, 206, 207, 208, 210, 215, 216, 217, 219, 222 and 224, regulations No. 45, amended

Articles 201, 202, 203, 204, 205, 206, 207, 208, 210, 215, 216, 217, 219, 222 and 224 of regulations No. 45 are hereby amended to read as follows:

ART. 201. *Depletion of mines oil and gas wells; depreciation of improvements.*—Sections 214 (*a*) (10) and 234 (*a*)(9) provide that taxpayers shall be allowed as a deduction in computing net income in the case of natural deposits, a reasonable allowance for depletion of mineral and for depreciation of improvements. The provisions of the statute and these articles do not apply to or affect the regulations covering invested capital, losses, accounting methods, etc.

The essence of these provisions of the statute is that the owner of mineral deposits, whether freehold or leasehold, shall within the limitations prescribed, secure through an aggregate of annual depletion and depreciation deductions the return of either (*a*) his capital invested in the property, or (*b*) the value of his property on the basic date, plus subsequent allowable capital additions (see art. 222), but not including land values for purposes other than the extraction of minerals.

Operating owners, lessors and lessees, whether corporations or individuals, are entitled to deduct an allowance for depletion and depreciation, but a stockholder in a mining or oil or gas corporation is not allowed such deductions (see further arts. 839 and 844).

When used in these sections of the regulations covering depletion and depreciation—

(*a*) The term "basic date" indicates the date of valuation, *i. e.*, March 1, 1913, in the case of property acquired prior thereto, the date of acquisition in the case of property acquired on or after March 1, 1913, or the date of discovery or within 30 days thereafter in the case of discovery.

(*b*) The "fair market value" of a property is that amount which would induce a willing seller to sell and a willing buyer to purchase. Where there has been no sale and the fair market value at the basic date is to be used, such value will be determined by the method which a prospective vendor and vendee in the industry would use in arriving at the sale value of the property at the basic date.

(*c*) A "mineral property" or "property" is the oil or gas well, including the mineral, plant, development, and surface value of the land. The value of a mineral property is the combined value of its component parts.

(*d*) *A* "mineral deposit" refers to "minerals only," such as the "ores only" in the case of a mine, to the "oil only" in the case of an oil well, and to the "gas only" in the case of a gas well. The value of a mineral deposit is its cost; or it is the value of the mineral property, less the value of the

plant, equipment, and surface of the land for purposes other than mineral production.

(*e*) "Minerals" comprise ores of the metals, coal, oil, gas and such non-metallic substances as abrasives, asbestos, asphaltum, barytes, borax, building stone, cement rock, clay, crushed stone, feldspar, fluorspar, fullers earth, graphite, gypsum, limestone, magnesite, marl, mica, mineral pigments, peat, potash, precious stones, refractories, rock phosphate, salt, sand and gravel, silica, slate, soapstone, soda, sulphur, and talc.

(*f*) "Operating profit" is the net income from mineral production before depletion and depreciation are deducted. It is distinct from net income.

Art. 202. *Capital recoverable through depletion deduction in the case of an operating owner.*—In the case of an operating owner in fee, the capital remaining in any year recoverable through depletion and depreciation deductions is (*a*) the cost or value of the property at the basic date plus (*b*) subsequent allowable capital additions and minus (*c*) depletion and depreciation sustained, whether legally allowable or not, from the basic date to the taxable year, and minus (*d*) the value of the land at the basic date for other purposes than mineral production. The capital recoverable through depletion is the total capital remaining less the sum recoverable through depreciation.

Art. 203. *Capital recoverable through depletion deductions in the case of lessee.*—(*a*) In the case of a lessee, the capital remaining in any year recoverable through depletion and depreciation deductions is (1) the value as of the basic date of the lessee's equity in the property plus (2) subsequent allowable capital additions but minus (3) depletion and depreciation sustained, whether legally allowable or not, from the basic date to the taxable year. The capital recoverable through depletion is the total capital remaining less the sum recoverable through depreciation.

(*b*) The value of the equities of lessor and lessee shall be computed separately, but, when determined as of the same basic date, shall together never exceed the value at that date of the property in fee simple.

(*c*) The value of a lessee's equity, if acquired prior to March 1, 1913, is the value of his interest in the mineral as of that date.

(*d*) The value of a lessee's equity in a proven mineral acquired after March 1, 1913, is its cost.

(*e*) The value of a lessee's equity in a discovery on or after March 1, 1913, is the fair market value at date of discovery or within 30 days thereafter, of his equity in the mineral discovered.

Art. 204. *Capital recoverable through depletion in case of lessor.*—(*a*) In the case of a lessor, the capital remaining in any year recoverable through depletion and depreciation deductions is (1) the value of his equity in the property at the basic date minus (2) depletion and depreciation sustained, whether legally allowable or not, from the basic date to the taxable year, plus (3) subsequent allowable capital additions, and minus (4) the value of the land at the basic date for other purposes than mineral production. The capital recoverable through depletion is the total capital remaining less the sum recoverable through depreciation.

(*b*) The value of the equities of lessor and lessee shall be computed separately, but, when determined as of the same basic date, shall together never exceed the value at that date of the property in fee simple.

(*c*) The value of the lessor's equity in the case of a mineral property not under lease on March 1, 1913, but subsequently leased, is the en bloc value of the mineral in the ground on March 1, 1913, and will, in the absence of satisfactory evidence to the contrary, be presumed not to exceed the value as of March 1, 1913, of the royalties to be expected under the lease.

(*d*) The value of a lessor's equity in a mineral property under lease March 1, 1913, for the entire operating life of the mineral deposits is the

value as of March 1, 1913, of the royalties and other payments to be expected under the terms of the lease in effect on that date.

(*e*) The value of a lessor's equity in a mineral property under lease for a portion of its operating life is the value as of March 1, 1913, of the royalties expected from the mineral to be extracted during the life of the existing lease plus the estimated en bloc value of the mineral remaining at its expiration, which, in the absence of satisfactory evidence to the contrary, will be presumed not to exceed the value as of March 1, 1913, of royalties which could have been expected as at that date from the remaining mineral.

(*f*) The value of a lessor's equity in a mineral property when acquired after March 1, 1913, is its cost.

(*g*) The value of a lessor's equity in a discovery on or after March 1, 1913, is the fair market value at the date of discovery, or within thirty days thereafter, of his equity in the mineral discovered.

Art. 205. *Determination of cost of deposits.*—In any case in which a depletion or depreciation deduction is computed on the basis of the cost or price at which any mine, mineral deposit, mineral right or leasehold was acquired, the owner or lessee will be required to show that the cost or price at which the property was bought was fixed for the purpose of a bona fide purchase and sale, by which the property passed to an owner in fact as well as in firm other than the vendor. No fictitious or inflated cost or price will be permitted to form the basis of any calculation of a depletion or depreciation deduction, and in determining whether or not the price or cost at which any purchase or sale was made represented the actual market value of the property sold, due weight will be given to the relationship or connection existing between the person selling the property and the buyer thereof.

Art. 206. *Determination of fair market value of mineral property.*—(*a*) Where the fair market value of the property at a specified date in lieu of the cost thereof is the basis for depletion and depreciation deductions, such value must be determined, subject to approval or revision by the commissioner, by the owner of the property in the light of the conditions and circumstances known at that date, regardless of later discoveries or developments in the property or subsequent improvements in methods of extraction and treatment of the mineral product. The value sought should be that established assuming a transfer between a willing seller and a willing buyer as of that particular date. The commissioner will lend due weight and consideration to any and all factors and evidence having a bearing on the market value, such as cost, actual sales and transfers of similar properties, market value of stock or shares, royalties and rentals, value fixed by the owner for purpose of the capital stock tax, valuation for local or state taxation, partnership accountings, records of litigation in which the value of the property was in question, the amount at which the property may have been inventoried in probate court, disinterested appraisals by approved methods such as the present value method and other factors.

(*b*) To determine the fair market value of a mineral property by the present value method, the essential factors must be determined for each deposit included in the property. The factors are (1) the total quantity of mineral in terms of the principal or customary unit (or units) paid for in the product marketed; (2) the average quality or grade of the mineral reserves; (3) the expected percentage of extraction or recovery in each process or operation necessary for the preparation of the crude mineral for market; (4) the probable operating life of the deposit in years; (5) the unit operating cost, i. e., cost of production exclusive of depreciation and depletion; (6) expected average selling price per unit during the operating life, and (7) the rate of profit commensurate with the risk for the particular deposit. When the deposit has been sufficiently developed these factors may be determined from past operating experience. In the applica-

tion of factors derived from past experience full allowance should be made for probable future variations in the rate of exhaustion, quality or grade of the mineral, percentage of recovery, costs of production and selling price of the product marketed during the expected operating life of the mineral deposit.

(*c*) Mineral deposits for which these factors may not be determined with reasonable accuracy from past operating experience may, with the approval of the commissioner, be valued in a similar manner; but the factors must be deduced from concurrent evidence such as the general type of the deposit, the characteristics of the district in which it occurs, the habit of the mineral deposits in the property itself, the intensity of mineralization, the rate at which additional mineral has been disclosed by exploitation, the stage of the operating life of the property, and other evidence tending to establish a reasonable estimate of the required factors.

(*d*) Mineral deposits of different grades, locations and probable dates of extraction in a mineral property shall be valued separately. The mineral content of a deposit should be determined in accordance with article 208 in the case of mines, with article 209 in the case of oil wells, and with articles 211 and 212 in the case of gas wells. In estimating the average grade of the developed and prospective mineral, account should be taken of probable increases or decreases as indicated by the operating history. The rate of exhaustion of a mineral deposit should be determined with due regard to the limitations imposed by plant capacity, by the character of the deposit, by the ability to market the mineral product, by labor conditions, and by the operating programme in force or definitely adopted at the basic date for future operations. The operating life of a mineral deposit is that number of years necessary for the exhaustion of both the developed and prospective mineral content at the rate determined as above. The operating cost comprises all current expense of producing, preparing and marketing the mineral product sold, exclusive of federal income, war profits and excess profits taxes, allowable capital additions as defined in article 222, and deductions for depreciation and depletion, but including cost of repairs and replacements necessary to maintain the plant and equipment at its rated capacity and efficiency. This cost of repairs and replacements is not to be confused with the depreciation deduction by which the cost or value of plant and equipment is returned to the taxpayer free from tax.

In general, no estimate of these factors will be approved by the commissioner which are not supported by the operating experience of the property or which are derived from different and arbitrarily selected periods.

(*e*) The product of the number of units of mineral recoverable in marketable form by the difference between the selling price and the operating cost per unit is the total expected operating profit. The value of each mineral deposit is then the total expected operating profit from that deposit reduced to a present value as of the basic date at the rate of interest commensurate with the risk for the operating life, and further reduced by the value at the basic date of the depreciable assets and of the capital additions, if any, necessary to realize the profits.

Art. 207. *Revaluation of mineral deposits not allowed.*—No revaluation of a property whose value as of the basic date has been determined and approved will be allowed during the continuance of the ownership under which the value was so determined and approved except in the case of discovery as defined in articles 219 and 220. The value as of the basic date may, however, be corrected when a virtual change of ownership of part of the property results as the outcome of litigation, and may be redistributed (*a*) when a revision of the number of units of mineral in the property has been made in accordance with articles 208, 209, or 211, and (*b*) in case of the sale of a part of the property, between the part sold and part retained.

ART. 208. *Determination of mineral contents of mine.*—Every taxpayer claiming a deduction for depletion for a given year will be required to estimate or determine with respect to each separate property the total units (tons, pounds, ounces, or other measure) of mineral products reasonably known or on good evidence believed to have existed in the ground on the basic date, according to the method current in the industry and in the light of the most accurate and reliable information obtainable. Preference shall be given in the selection of a unit of estimate to the principal unit (or units) paid for in the product marketed. The estimate of the recoverable units of the mineral products in the property for the purposes of valuation and depletion shall include as to both quantity and grade (*a*) the ores and minerals "in sight," "blocked out," "developed," or "assured" in the usual or conventional meaning of these terms in respect to the type of the deposit, and (*b*) "probable" or "prospective" ores and minerals (in the corresponding sense); that is, ores and minerals that are believed to exist on the basis of good evidence, although not actually known to occur on the basis of existing development; but "probable" or "prospective" ores and minerals may be computed, for purposes of this valuation, (*c*) as to quantity, only in case they are extensions of known deposits or are new bodies or masses whose existence is indicated by geological or other evidence to a high degree of probability, and (*d*) as to grade, of such richness only as accords with the best indications available.

ART. 210. *Computation of deduction for depletion of mineral deposits.*—(*a*) Depletion attaches to the annual production "according to the peculiar conditions of each case" and when the depletion actually sustained, whether legally allowable or not, from the basic date, equals the cost or value on the basic date plus subsequent allowable capital additions, no further deduction for depletion will be allowed except in consequence of added value arising through discovery or purchase (see arts. 202, 203, 204 and 222).

(*b*) When the value of the property at the basic date has been determined, depletion for the taxable year shall be determined by dividing the value remaining for depletion by the number of units of mineral to which this value is applicable, and by multiplying the unit value for depletion, so determined, by the number of units sold within the taxable year. In the selection of a unit for depletion preference shall be given to the principal or customary unit or units paid for in the product sold.

ART. 215. *Depletion: Adjustments of accounts based on bonus or advanced royalty.*—(*a*) Where a lessor receives a bonus or other sum in addition to royalties, such bonus or other sum shall be regarded as a return of capital to the lessor, but only to the extent of the capital remaining to be recovered through depletion by the lessor at the date of lease. If the bonus exceeds the capital remaining to be recovered, the excess and all the royalties thereafter received will be income and not depletable. If the bonus is less than the capital remaining to be recovered by the lessor through depletion, the difference may be recovered through depletion deductions based on the royalties thereafter received. The bonus or other sum paid by the lessee for a lease made on or after March 1, 1913, will be his value for depletion as of date of acquisition.

(*b*) Where the owner has leased a mineral property for a term of years with a requirement in the lease that the lessee shall extract and pay for, annually, a specified number of tons, or other agreed units of measurement, of such mineral, or shall pay annually a specified sum of money which shall be applied in payment of the purchase price or royalty per unit of such mineral whenever the same shall thereafter be extracted and removed from the leased premises, the value in the ground to the lessor, for purposes of depletion, of the number of units so paid for in advance of extraction will constitute an allowable deduction from the gross income of the year in which such payment or payments shall be made; but no deduction for

depletion by the lessor shall be claimed or allowed in any subsequent year on account of the extraction or removal in such year of any mineral so paid for in advance and for which deduction has once been made.

(*c*) If, for any reason, any such mineral lease shall be terminated or abandoned before the mineral which has been paid for in advance has been extracted and removed, and the lessor repossesses the leased property, the lessor shall adjust his capital accounts by restoring to the capital sum of the property the depletion deductions made in prior years on account of royalties on mineral paid for but not removed, and his income account shall be adjusted so as to include the amount so restored to capital sum as income of the year such lease is terminated or the property repossessed, and the tax thereon paid.

(*d*) Upon the expiration, termination, or abandonment of a lease, without the removal of any or all of the mineral contemplated by the lease, the lessor shall be required to restore to capital account so much of the bonus received and deducted from capital recoverable through depletion as is in excess of the actual depletion or loss in value sustained as a result of the operations under the lease and the corresponding amount will be income for the year in which the lease expires, terminates, or is abandoned.

ART. 216. *Depletion and depreciation accounts on books.*—Every taxpayer claiming and making a deduction for depletion and depreciation of mineral property shall keep accurate ledger accounts in which shall be charged the fair market value as of March 1, 1913, or within 30 days after the date of discovery, or the cost, as the case may be, (*a*) of the mineral deposit, and (*b*) of the plant and equipment, together with subsequent allowable capital additions to each account. These accounts shall thereafter be credited annually with the amounts, whether legally allowable or not, of the depreciation and depletion sustained; or the amounts of the depreciation and depletion sustained shall be credited to depletion and depreciation reserve accounts, to the end that when the sum of the credits for depletion and depreciation equals the value or cost of the property, plus subsequent allowable capital additions, no further deduction for depletion and depreciation with respect to the property shall be allowed.

ART. 217. *Statement to be attached to return when depletion or depreciation of mineral property is claimed.*—(*a*) To the return of every taxpayer claiming a deduction for depletion or depreciation there shall be attached a statement setting forth with respect to each mineral property: (1) whether taxpayer is a fee owner, lessor or lessee; (2) the date of acquisition and if under lease, its exact terms and date of expiration; (3) the cost of the property, stating the amount paid to each vendor with his name and address; (4) the basic date at which the property is valued; (5) the value of the property on the basic date, with a statement of the precise method by which it was determined; (6) the value of the surface of the land for purposes other than mineral production; (7) the estimated number of units of mineral at the basic date with an explanation of the method used in the estimation, and an average analysis which will indicate the quality of the mineral values; (8) the number of units sold during the year for which the return is made; (9) the gross and net income derived from the sale of mineral; (10) the amounts deducted for depletion; (11) the amounts sustained on account of depletion, or on account of depreciation, stated separately from the basic date to the taxable year, and (12) any other data which will be helpful in determining the reasonableness of the deductions claimed in the return.

(*b*) To the return of every taxpayer claiming a deduction for depletion in respect of (1) property in which he owns a fractional interest only, or (2) a leasehold, or (3) property subject to lease, there shall also be attached a statement setting forth the name and address and the precise nature of the holding of each person interested in the property, and every lessor shall attach to his return an affidavit stating, as of the date of filing the return,

whether the lease involved is still in effect during the year covered by the return, and, if not still in effect, when it was terminated and for what reason and whether the lessor has repossessed the property.

ART. 219. *Discovery of mines.*—(*a*) To entitle a taxpayer to a valuation of his property for the purpose of depletion allowances, by reason of the discovery of a mine on or after March 1, 1913, the discovery must be made by the taxpayer after that date, and must result in the fair market value of the property becoming disproportionate to the cost. The fair market value of the property will be deemed to have become disproportionate to the cost when the newly-discovered mine contains mineral in such quantity and of such quality as to afford a reasonable expectation of return to the taxpayer of an amount materially in excess of the capital expended in making such discovery, plus the cost of future development, equipment and exploration.

(*b*) For the purpose of these sections of the act a mine may be said to be discovered when (1) there is found a natural deposit of mineral, or (2) there is disclosed by drilling or exploration, conducted above or below ground, a mineral deposit not previously known to exist, and so improbable that it had not been, and could not have been, included in any previous valuation for the purpose of depletion, and which in either case exists in quantity and grade sufficient to justify commercial exploitation. The discovery must add a new mine to those previously known to exist and cannot be made within a proven tract or lease as defined in paragraph (*f*) infra.

(*c*) In determining whether a discovery entitling the taxpayer to a valuation has been made the commissioner will take into account the peculiar conditions of each case; but no discovery, for the purposes of valuation, can be allowed, as to ores or minerals, such as extensions of known ore bodies, that have been or should have been included in "probable" or "prospective" ore or mineral, or in any other way comprehended in a prior valuation, nor as of a date subsequent to that when, in fact, discovery was evident, when delay by the taxpayer in making claim therefor has resulted or will result in excessive allowances for depletion.

(*d*) The value of the property claimed as a result of a discovery must be the fair market value, as defined in article 206, based on what is evident within 30 days after the commercially valuable character and extent of the discovered deposits of ore or mineral have with reasonable certainty been established, determined or proved.

(*e*) After a bona fide discovery the taxpayer shall adjust his capital and depletion accounts in accordance with articles 206, 208 and 210, and shall submit such evidence as to establish his right to a revaluation, covering the conditions and circumstances of the discovery and the size, character and location of the discovered deposit of mineral, the value of the property at the prior basic date, the cost of discovery, and its development, equipment and exploitation, its value, and the particular method used in the determination.

(*f*) In the case of a mine, a "proven tract or lease" includes, but is not necessarily limited to, the mineral deposits known to exist in any known mine at the date as of which such mine was valued for purposes of depletion, and all extensions thereof, including "probable" and "prospective" ores considered as a factor in the determination of their value or cost.

ART. 222. *Allowable capital additions in case of mines.*—(*a*) All expenditures for development, rent and royalty in excess of receipts from minerals sold shall be charged to capital account recoverable through depletion, while the mine is in the development stage. Thereafter any development which adds value to the mineral deposit beyond the current year shall be carried as a deferred charge and apportioned and deducted as operating expense in the years to which it is applicable.

(*b*) All expenditures for plant and equipment shall be charged to capital account recoverable through depreciation, while the mine is in the

development stage. Thereafter the cost of major items of plant and equipment shall be capitalized, but the cost of minor items of equipment and plant necessary to maintain the normal output and the cost of replacement may be charged to current expense of operation.

ART. 224. *Depreciation in the case of mines.*—(*a*) The act provides that deductions for depreciation of improvements "according to the peculiar conditions in each case" may be taken by a taxpayer owning or leasing mining property. This is deemed to include exhaustion and wear and tear of the property used in mining of deposits, comprising a reasonable allowance for obsolescence. (See arts. 161-171.)

(*b*) It shall be optional with the taxpayer, subject to the approval of the commissioner (1) whether the value of the mining property plus allowable capital additions but minus estimated salvage value shall be recovered at a rate established by current exhaustion of mineral, or (2) whether the value of the mineral deposit on the basic date plus allowable capital additions shall be recovered through depletion and the cost of plant and equipment less the estimated salvage value shall be recovered by reasonable charges for depreciation (see art. 161) at the rate determined by its physical life or its economic life or, according to the peculiar conditions of the case, by a method satisfactory to the commissioner.

(*c*) The estimated physical life of a plant or unit thereof (including buildings, machinery, apparatus, roads, railroads and other equipment and improvements whose principal use is in connection with the mining or treatment or other necessary handling of mineral products) may be defined as the estimated time such plant, or unit, when given proper care and repair, can be continued in use despite physical deterioration, decay, wear and tear.

(*d*) The estimated economic life of a plant or unit thereof is the estimated time during which the plant or unit may be utilized effectively and economically for its intended purposes, and may be limited by the life of the property or of that portion of the mineral deposits which it serves, but can never exceed the physical life.

(*e*) Any difference between the salvage value of plant and equipment and the sum remaining to be recovered through depreciation at the termination of mining operations shall be returned as profit or loss in the year in which it is realized.

(*f*) Nothing in these regulations shall be interpreted as meaning that the value of a mining plant and equipment may be reduced by depreciation deductions to a sum below the value of the salvage when the property shall have become obsolete or shall have been abandoned for the purpose of mining. In estimating the salvave value of the equipment at the end of its estimated economic life due consideration may be given to its specialized character and the cost of dismounting and dismantling and transporting it to market.

(*g*) Nothing in these regulations shall be interpreted to permit expenditures charged to expense in any taxable year or any part of the value of land for purposes other than mining to be recovered through depletion or depreciation.

(T. D. 3108, December 30, 1920)

Income tax

Inventories—Article 1582, regulations No. 45, amended

Article 1582, regulations No. 45, is hereby amended to read as follows:

ART. 1582. *Valuation of inventories.*—Inventories must be valued at (*a*) cost or (*b*) cost or market, as defined in article 1584 as amended, whichever is lower. (See art. 1585 for inventories by dealers in securities.) Whichever basis is adopted must be applied consistently to the entire inventory. A taxpayer may, regardless of his past practice, adopt the basis of "cost or market, whichever is lower," for his 1920 inventory, provided

a disclosure of the fact and that it represents a change is made in the return. Thereafter changes can be made only after permission is secured from the commissioner. Inventories should be recorded in a legible manner, properly computed and summarized, and should be preserved as a part of the accounting records of the taxpayer. Goods taken in the inventory which have been so intermingled that they cannot be identified with specific invoices will be deemed to be the goods most recently purchased.

(T. D. 3109, December 30, 1920)

Income tax

Inventories—Article 1584, regulations No. 45, as amended by T. D. 3047, amended

Article 1584, regulations No. 45, as amended by T. D. 3047, is hereby amended to read as follows:

ART. 1584. *Inventories at market.*—Under ordinary circumstances, "market" means the current bid price prevailing at the date of the inventory for the particular merchandise in the volume in which ordinarily purchased by the taxpayer. This method of valuation is applicable in the cases (*a*) of goods purchased and on hand, (*b*) of basic elements of cost (materials, labor and burden) in goods in process of manufacture, and (*c*) of finished goods on hand; exclusive, however, of goods on hand or in process of manufacture for delivery upon firm sales, contracts at fixed prices entered into before the date of the inventory, which goods must be inventoried at cost. Where no open market quotations are available, the taxpayer must use such evidence of a fair market price at the date or dates nearest the inventory as may be available, such as specific transactions in reasonable volume entered into in good faith, or compensation paid for cancellation of contracts for purchase commitments. Where, owing to abnormal conditions, the taxpayer has regularly sold such merchandise at prices lower than the current bid price as above defined, the inventory may be valued at such prices, and the correctness of such prices will be determined by reference to the actual sales of the taxpayer for a reasonable period before and after the date of the inventory. Prices which vary materially from the actual prices so ascertained will not be accepted as reflecting the market, and the penalties prescribed for filing false and fraudulent returns may be asserted. Goods in process of manufacture may be valued for purposes of the inventory on the lowest of the following bases: (1) The replacement or reproduction cost prevailing at the date of the inventory; or (2) the proper proportionate part of the actual finished cost; or under abnormal conditions (3) the proper proportionate part of the sales price of the finished product, account being taken in all cases of the proportionate part of the total cost of basic elements (materials, labor and burden) represented in such goods in process of manufacture at the stages at which they are found on the date of the inventory. The inventories of taxpayers on whatever basis taken will be subject to investigation by the commissioner, and the taxpayer must satisfy the commissioner of the correctness of the prices adopted. He must be prepared to show both the cost and the market price of each article included in the inventory. It is recognized that in the latter part of 1918, by reason among other things of governmental control not having been relinquished, conditions were abnormal, and in many commodities there was no such scale of trading as to establish a free market. In such a case, when a market was established during the succeeding year, a claim may be filed for any loss sustained in accordance with the provisions of section 214 (*a*) 12 or section 234 (*a*) 14 of the statute. (See arts. 261-268.)

(T. D. 3110, December 31, 1920)

Income tax—Revenue act of 1918

Article 403 of regulations No. 45 modified

In order to clear away the misunderstanding which exists with respect to the proper treatment under section 223 of the revenue act of 1918 of the earnings of minors, but not for the purpose of stating a different rule from that originally intended, article 403 of regulations No. 45 is modified to read as follows:

ART. 403. *Return of income of minor.*—An individual under 21 years of age or under the statutory age of majority where he lives, whatever it may be, is required to render a return of income if he has a net income of his own of $1,000 or over for the taxable year. If he is married, see article 401. [If a minor has been emancipated by his parent his earnings are his own income, and such earnings, regardless of amount, are not required to be included in the return of the parent.] If the aggregate of the net income of a minor from any property which he possesses, and from any funds held in trust for him by a trustee or guardian, and from his earnings [in case he has been emancipated], is at least $1,000, a return as in the case of any other individual must be made by him or by his guardian or some other person charged with the care of his person or property for him. (See art. 422.) [If, however, a minor has not been emancipated by his parent], who appropriates or may appropriate his earnings, such earnings, regardless of amount, are income of the parent and not of the minor for the purpose of the normal tax and surtax. In the absence of proof to the contrary, a parent will be assumed not to have emancipated his minor child, and must include in his return any earnings of the minor.

(T. D. 3111)

Income tax—Opinion of the attorney general

Income from sources within the United States defined

1. There is no income from sources within the United States from goods manufactured there unless there is, in the language of section 233 (*b*), both "manufacture and disposition of goods within the United States." The act taxes only income that accrues within the United States.

2. The mere buying of goods within the United States, with capital furnished from abroad, to be sold abroad, is not a trade or business exercised in the United States so as to subject the purchaser of the goods to income tax. A merchant exercises his trade where he has his principal place of business, viz.: where his profits come home to him.

3. If income be taxed the recipent thereof must have a domicile within the jurisdiction imposing the tax, or the property or business out of which the income issues must be situate within such jurisdiction, so that the income may be said to have a situs therein.

4. Where a corporation purchases goods abroad and sells them within the United States, the profits accruing from such transactions are profits derived from business carried on within the United States and the gross income from such business is income from sources within the United States.

5. In the case of a partnership organized abroad, one of whose members is a resident citizen of the United States, and whose business consists in selling abroad goods consigned to it from various parts of the world, including the United States, upon commission, title to the goods never vesting in the firm but passing directly from the consignors to the purchasers, the business of the United States member consisting of soliciting consignments of goods, disbursing proceeds of sales made abroad in payment of consignors in the United States, attending to the shipment of goods, and making advances to consignors on security of bills of lading and express receipts, the funds for the use of the branch office in the United States being ob-

tained by selling drafts on a foreign city, only the income of the partner resident within the United States is income from sources within the United States and subject to income tax.

6. A foreign corporation, having its home office abroad, which operates a line of steamships between the United States and foreign ports, consigns its steamships to an American firm, who handle them as agents and brokers, seeing to the entry and clearance of each steamer, the discharge and loading of cargo and supplies, collecting such part of the freight as is prepayable in this country, deducting the amount of its disbursements and charges and remitting the balance to the foreign corporation, derives income from sources within the United States to the extent that it derives income from traffic originating within the United States and is taxable upon such income.

(T. D. 3112, January 10, 1921)

Income tax

Concerning federal taxation as income of amounts withheld from the salaries of government employees, and of annuities paid to retired employees

The amounts deducted and withheld from the basic salary, pay or compensation paid to employees in the civil service of the United States, in accordance with the provisions of the act approved May 22, 1920, should be reported by such employees for income-tax purposes. The total compensation of the employees should be reported in gross income, and no corresponding deduction can be taken for the amounts withheld, inasmuch as such amounts are payments made toward the purchase of annuities provided for in the act and are not allowable deductions for income-tax purposes.

The annuities paid to retired employees are subject to tax to the extent that the aggregate amount of the payments exceeds the amounts withheld from the compensation of the employee.

Wallace A. Salmon announces the removal of his office to 412 Native Sons building, Sacramento, California.

David Levin announces the opening of an office in North American building, Philadelphia, Pennsylvania.

Arthur F. Thayer announces the removal of his office to 821 Smith building, Detroit, Michigan.

Lewis Wintermute announces the removal of his office to 325 Guardian building, Cleveland, Ohio.

Arthur P. Monk & Co. announce the removal of their offices to 16 Exchange place, New York.

Marwick, Mitchell & Co. announce that Thomas Ritchie has retired from partnership in the firm.

Students' Department

EDITED BY H. A. FINNEY

The examination questions of the American Institute of Accountants are now used by thirty-two state C. P. A. boards as well as by the institute. Readers of THE JOURNAL OF ACCOUNTANCY who were candidates in the November examinations conducted by these boards or by the institute are, therefore, already familiar with the problems. These solutions, it should be understood, merely represent the opinion of the editor of this department and are not official solutions by the institute.

EXAMINATION IN ACCOUNTING THEORY AND PRACTICE PART I—*Continued*

Question 4:

Mr. Richard Roe, a married man, requests you to prepare his federal income-tax return for the ten months ended December 31, 1919, from the following information which he has submitted to you:

Salary	$ 5,000.00
Directors' fees	105.00
Rent of property (net)	7,596.54
Interest on investments	1,648.32
Dividends on bank stock	2,500.00
Dividends on stock held in industrial companies	11,500.00
Dividends on stock of a corporation organized and doing business in a province of Canada	1,500.00
He has paid out:	
Interest on his personal indebtedness	2,500.00
Taxes on income-producing real property	1,600.00
Taxes on real property not producing income	400.00
Personal household expenses	2,500.00
He also reports:	
Loss of a dwelling house, from which he had received rents, by fire, no insurance being carried	1,200.00
Judgment rendered against him in his suit to collect the past due note of Harry Hanson—	
Principal	2,000.00
Interest	320.00
Legal expenses	150.00
	$2,470.00

State the resultant tax. The rates for individual taxes for 1919 were:

First $4,000.00—4%, thereafter 8%

Surtax

$ 5,000.00	to	$ 6,000.00—	1%
6,000.00	"	8,000.00—	2%
8,000.00	"	10,000.00—	3%
10,000.00	"	12,000.00—	4%

$12,000.00	to	$14,000.00	— 5%
14,000.00	"	16,000.00	— 6%
16,000.00	"	18,000.00	— 7%
18,000.00	"	20,000.00	— 8%
20,000.00	"	22,000.00	— 9%
22,000.00	"	24,000.00	—10%
24,000.00	"	26,000.00	—11%
26,000.00	"	28,000.00	—12%
28,000.00	"	30,000.00	—13%

A married man is entitled to an exemption of $2,000.00.

Solution, Question 4 (by Eric L. Kohler):

	Subject to Normal tax	Subject to Surtax only
Taxable income:		
Salary	$ 5,000.00	
Directors' fees	105.00	
Rent of property (net)	7,596.54	
Interest on investments	1,648.32	
Dividends on Canadian stock	1,500.00	
Dividends on bank stock		$ 2,500.00
Tax paid by bank on stock		
Dividends on industrials		11,500.00
Total gross income	$15,849.86	$14,000.00
Allowable deductions:		
Interest	$ 2,500.00	
Taxes (including bank stock tax)	2,000.00	
(1) Loss by fire (less depreciation already recovered)	1,200.00	
(2) Bad debt	2,150.00	
Total deductions	$ 7,850.00	
Net income subject to normal tax	$ 7,999.86	
Add dividends	14,000.00	
Total net income subject to surtax	$21,999.86	
Computation of tax:		
Normal tax—		
Net income subject to normal tax	$ 7,999.86	
Less normal tax credit:		
(3) Personal exemption—10 months.	1,666.67	
	$ 6,333.19	
4% on first $4,000.00	$ 160.00	
8% on balance of $2,333.19	186.66	$ 346.66
Surtax—		
(4) 9 x 8 x 10 — 10	$ 710.00	
9% of $1,999.86	179.99	889.99
Total tax payable		$1,236.65

Notes:

(1) Loss of an individual's own residence through fire may be deducted to the full extent of its cost or fair market value at March 1, 1913, if purchased prior to that date, without allowance for accrued depreciation. In this case, the house having been rented, depreciation thereon has been an allowable deduction during each taxable year.

(2) If accrued interest of $320.00 has been reported as income in this return or in a prior return, the amount thereof uncollected may also be deducted.

(3) The return being on the basis of 10 months, only 5/6 of the personal exemption may be deducted. A return for less than a year may be made only in case the taxpayer is changing, with the consent of the commissioner, from a fiscal to calendar year.

(4) The rule for calculating surtaxes on income not exceeding $100,000.00, follows:

Ascertain the highest even number of thousands contained in the net income (in the above, 20), divide by 2, and (a) subtract 1 and (b) subtract 2; multiply a x b x 10, and subtract 10 (9 x 8 x 10 — 10), the result being the surtax on the highest even thousand. The balance of the income (which will be less than $2,000.00) is subject to a surtax equal to a (the a above) percent thereof.

Question 5:

The balance-sheet of the Rozinante Company at June 30, 1920, was as follows:

Assets		*Liabilities*	
Plant and equipment.....	$15,000.00	Capital stock.....	$25,000.00
Merchandise	3,000.00	Accounts payable.....	2,000.00
Cash	1,000.00		
Deficit	8,000.00		
	$27,000.00		$27,000.00

A and B buy the entire stock, new certificates being made out to them in equal proportions. The price agreed upon is $20,000.00, of which $15,000.00 is paid in cash, the balance being represented by a joint and several note for $5,000.00 signed by A and B. In addition, the former stockholders, X and Y, as part of a contract, are allowed to withdraw the $1,000.00 cash shown in the above balance-sheet.

Without consulting an accountant, A and B open a new set of books, but are uncertain how much to credit capital stock. They therefore ask the former stockholders what their $25,000.00 credit to capital stock represents, and are informed that "it was the amount we paid for the stock of the corporation when it was organized." Acting on this information they credit capital stock with the price they agreed to pay for it, opening new books by the following journal entry:

Plant and equipment	$15,000.00	
Merchandise	3,000.00	
Goodwill	9,000.00	
Capital stock		$20,000.00
Accounts payable		2,000.00
Notes payable to X and Y.....		5,000.00

As the corporation is in need of funds an attempt is made to borrow $1,500.00. The bank will not accept the corporation's note, but offers to lend $750.00 to A and the same amount to B on their personal notes. The

notes are issued and the cash is deposited in bank to the credit of the corporation. A and B agree that this $1,500.00 shall be considered "an additional investment," and an entry is made debiting cash and crediting capital stock, $1,500.00.

When the notes mature a cheque for $1,500.00 is drawn on the corporation's bank account, but the bookkeeper does not know what account to charge and asks for your advice. Upon investigation you find the facts as set forth above.

Comment on the propriety of the transactions and the entries and state what entries you would advise the bookkeeper to make.

Solution, Question 5:

This problem illustrates the confusion which exists in the minds of a good many people who fail to recognize the distinction between a corporation and a partnership. The sale of all the stock to A and B should have had no effect on the corporation's books except to the extent of the $1,000.00 of cash withdrawn by the former stockholders and the change of stockholders shown in the stock ledger. The withdrawal of the cash increased the deficit to $9,000.00, and an entry should have been made debiting deficit and crediting cash $1,000.00. It is probable that A and B could be held liable to creditors for the amount of this $1,000.00 if the corporation became incapable of paying its debts. Their consent to the withdrawal in conjunction with the purchase of the stock would probably be interpreted by a court as equivalent to a withdrawal of $1,000.00 by them at a time when there was no surplus.

The payment of $15,000.00 in cash and the issuing of notes for $5,000.00 is a private matter between A and B on the one hand and X and Y on the other, and no entry for the transaction should have been made on the corporation's general books.

The $9,000.00 charge to goodwill is also wrong. A corporation does not acquire goodwill when a portion or all of its stock changes hands, even though the price paid is greater than the book value of the stock. The $9,000.00 should appear in deficit account.

It was not necessary to open new books, but there is nothing improper in doing so, provided the entries are correct. The entries as made were wrong and should be reversed.

Capital stock	$20,000.00	
Accounts payable	2,000.00	
Notes payable to X and Y	5,000.00	
Plant and equipment		$15,000.00
Merchandise		3,000.00
Goodwill		9,000.00

To reverse entry opening new books.

An entry should then be made reopening the books correctly. After making an entry on the old books charging deficit and crediting cash $1,000.00, the proper entry on the new books would be:

Plant and equipment	$15,000.00	
Merchandise	3,000.00	
Deficit	9,000.00	
Capital stock		$25,000.00
Accounts payable		2,000.00

To transfer balances from old to new ledger.

These entries have the following results:

The goodwill is eliminated and the deficit shown;

The capital stock account shows the par of the stock outstanding;

The notes payable account is eliminated, since the notes are personal and not corporate.

The entry for the issue of the two notes totaling $1,500.00 should be reversed:

Capital stock	$1,500.00	
Cash		$1,500.00

To reverse entry crediting capital stock with proceeds of two notes of $750,000 each, issued by A and B.

No entry should be made for the notes themselves, as they are not a liability of the corporation, but since the cash proceeds are to be treated as additional investments reducing the deficit, the following entry should be made:

Cash	$1,500.00	
Deficit		$1,500.00

Cash donation by A and B; $750.00 each.

When the notes mature, they should be paid by A and B individually. If they are paid from the corporation's cash, the cash payment should be regarded as a loan to A and B, and should be recorded as follows:

A loan	$750.00	
B loan	750.00	
Cash		$1,500.00

Cash lent to A and B with which to pay their notes.

Question 6:

The following letter is received by a practising accountant from a man not previously known to the former:

"I am contemplating the purchase of a business, the proposal of the present owner being that I pay him a flat price of $500,000.00 He states that the plant and real estate are worth $200,00.00, the inventories and accounts receivable $250,000.00 and the cash $30,000.00. The liabilities of the business which would be assumed by the purchaser amount to $120,000.00. The profits are said to be good and stable.

"The nature of the business appeals to me and I am much interested in the proposition, but I have never had any experience in such matters and cannot make up my mind. I do not know how to determine what the business is worth or what dangers are involved in taking over a business in this way. My lawyer has suggested to me that public accountants are generally em-

ployed in such circumstances. Not having engaged any in the past I do not know in just what way their services would be useful to me in making up my mind or in taking delivery if I should accept the proposition.

"Will you kindly advise me in the matter?"

Write an answer to the above letter.

Answer, Question 6:

DEAR SIR:

The advisability of purchasing a business depends upon two factors: the value of the net assets and the amount and stability of the profits. A public accountant may be of service to a prospective purchaser by making an examination of the books of the business and rendering an unprejudiced report covering the net assets and the profits.

As to the net assets of the business which you contemplate purchasing, the plant and real estate should be appraised unless you are expert enough in the valuation of such property to be willing to reply on your own judgment. An accountant can report on the value of the other assets after making an audit. If you are to assume the liabilities of the business as part of the contract of purchase, you will want to be as certain as possible that all the liabilities are on the books and included in the $120,000.00. The search for unrecorded liabilities is part of the service which an accountant can render in such cases.

If an audit shows the assets and liabilities to be as stated, and if you are to get the $30,000.00 cash, the conditions are as follows:

Purchase price		$500,000.00
Deduct net assets:		
Plant and real estate	$200,000.00	
Inventories and accounts receivable	250,000.00	
Cash	30,000.00	
Total assets	$480,000.00	
Liabilities	120,000.00	360,000.00
Excess of purchase price over net assets		$140,000.00

The payment of this excess would be inadvisable unless the profits are sufficiently good to insure you a return on this extra investment. In other words, you are being asked to pay $140,000.00 for the goodwill of the business, and you ought to be quite certain that the business has a goodwill. This is where an accountant can probably be of the greatest service to you by checking up the books of the business for several years to see whether the profits have been properly computed, whether they have been large enough to pay a return on the excess payment of $140,000.00, and whether they have been stable enough to make it probable that your investment of $500,000.00 will pay a good income regularly.

If you care to have me go into this matter for you, we can arrange a conference to discuss the details.

Yours truly,

_____

EXAMINATION IN ACCOUNTING THEORY AND PRACTICE
PART II

November 17, 1920, 1 P. M. to 6 P. M.

Answer questions 1, 2 and 3 and any three other questions.

Question 1:

You are requested by the president of a corporation to assist in the preparation of the federal income and excess-profits tax return of his company for the calendar year 1919, and for the purpose thereof the following data are submitted to you:

THE NOVEMBER CORPORATION

CONDENSED TRIAL BALANCE (AFTER CLOSING)

For the year from January 1, 1919, to December 31, 1919

	January 1		December 31	
Particulars	Dr.	Cr.	Dr.	Cr.
Properties	$ 2,500,000.00		$ 3,500,000.00	
Deprec'on reserve.		$ 500,000.00		$ 700,000.00
Goodwill acquired for stock.....	1,500,000.00		1,500,000.00	
Invest'nts in stock of other corps. at cost—				
Domestic corps. (25% interest).	250,000.00		250,000.00	
Foreign corps. (20% interest).	100,000.00		100,000.00	
Inventories	3,000,000.00		5,000,000.00	
Inventory reserves		500,000.00		1,000,000.00
Receivables	2,500,000.00		3,000,000.00	
Bad debt reserves.		100,000.00		250,000.00
Cash	1,400,000.00		2,000,000.00	
Bond discount....	90,000.00		80,000.00	
Commission paid on issue of common stock.....	60,000.00		60,000.00	
Prepaid expenses.	50,000.00		40,000.00	
Preferred stock..		1,500,000.00		1,125,000.00
Common stock....		2,500,000.00		4,500,000.00
Bonds		1,000,000.00		1,000,000.00
Current liabilities.		1,600,000.00		1,105,000.00
Provision for federal income and profits taxes....		700,000.00		2,000,000.00
Contingent reserve		250,000.00		250,000.00
Preferred stock redempt'n fund.		150,000.00		525,000.00
Earned surplus...		2,150,000.00		2,575,000.00
Capital surplus resulting from appraisal of properties		500,000.00		500,000.00
	$11,450,000.00	$11,450,000.00	$15,530,000.00	$15,530,000.00

STATEMENT OF PROFITS AND INCOME

For the year ended December 31, 1919

Sales		$25,000,000.00
Less cost of sales		15,000,000.00
Gross profit		$10,000,000.00
Deduct selling, general and administration expenses:		
Selling expenses		$ 3,500,000.00
Advertising		500,000.00
Collection expenses		200,000.00
Contingent losses on bad and doubtful accounts		200,000.00
General office salaries		100,000.00
Profit-sharing bonus of executives		250,000.00
Taxes:		
Real and personal property tares		50,000.00
Capital-stock tax		5,000.00
Special assessments		10,000.00
Life insurance policy premiums		5,000.00
Charitable contributions:		
Public subscriptions		25,000.00
Employees' welfare		30,000.00
Total expenses		$4,875,000.00
Net profits from operations		$5,125,000.00
Add other income:		
Dividends received from domestic corporations	$ 100,000.00	
Dividends on foreign investments	50,000.00	
Interest received	10,000.00	160,000.00
		$5,285,000.00
Deduct:		
Interest paid	$ 250,000.00	
Proportion of bond discounts written off	10,000.00	260,000.00
Net profits and income		$5,025,000.00
Deduct:		
Expenses in connection with issue of capital stock	$ 50,000.00	
Provision for federal income taxes (preliminary estimate)	2,000,000.00	
Special reserve against inventory	500,000.00	2,550,000.00
Surplus net profits		$2,475,000.00

SURPLUS ACCOUNT

For the year ended December 31, 1919

Balance at beginning of year	$2,650,000.00
Net profits for year	2,475,000.00
	$5,125,000.00

Less:			
Excess of 1918 federal taxes actually paid over amount provided at Dec. 31, 1918..		$ 100,000.00	
Cash dividend paid on preferred stock:			
January 31, 1919.....	$ 20,000.00		
April 30, 1919.....	20,000.00		
July 31, 1919.....	20,000.00		
October 31, 1919.....	15,000.00	75,000.00	
Dividends paid on common stock:			
In cash:			
February 28, 1919.....	$250,000.00		
August 31, 1919.....	250,000.00	500,000.00	
In stock:			
August 31, 1919.....		1,000,000.00	
Preferred stock redemption fund		375,000.00	2,050,000.00
			$3,075,000.00

You are also informed that the company was organized on January 1, 1910, with an authorized and issued capital of $4,150,000.00, divided as to

Preferred stock	$1,650,000.00
Common stock	2,500,000.00

You are further informed that of this capital $1,000,000.00 common stock was sold to an underwriting syndicate for cash at par, less 6% commission, and that the remainder of the stock was issued to the vendor company in acquisition of the business property, goodwill and other assets taken over. The capital stock outstanding has been unchanged from the date of organization to January 1, 1919, except as to the redemption of the preferred stock indicated, which took place March 31, 1917. The book values of the fixed properties are based on an appraisal made by an appraisal company as at March 1, 1913. In addition to the common stock dividend paid during the year, the company issued a further $1,000,000.00 common stock, which was sold for cash at par as follows:

August 31.....	$500,000.00
October 31.....	500,000.00

On October 31, 1919, it also redeemed for cash and retired preferred stock at par to the amount of $375,000.00.

You may assume the company was not engaged on any government contracts throughout the year 1919.

Prepare draft statements showing

(1) The amount of the company's "invested capital" for the year, which the treasury authorities will recognize for the purpose of computation of the taxes.

(2) The taxable net income for the year.

(3) The amount of income and excess-profits taxes assessable for the year. Excess-profits exemptions for 1919 were 8% of invested capital plus $3,000.00. Excess-profits rates for 1919 were:

First bracket	20%
Second bracket	40%

Income following in first bracket is that portion thereof not exceeding 20% of invested capital. Income-tax rate for 1919 was 10%, with exemptions of $2,000.00.

Solution, Question 1 (by Eric L. Kohler)

(a) ***Net taxable income:***

THE NOVEMBER CORPORATION

WORKING TRIAL BALANCE—PROFIT AND LOSS ACCOUNT

Showing reconciliation between net profits per books and taxable net income year ended December 31, 1919

	Trial balance December 31, 1919		*Non-taxable income and non-allowable deductions*		*Taxable income and allowable deductions*	
	Debit	*Credit*	*Debit*	*Credit*	*Debit*	*Credit*
Sales		$25,000,000.00				$25,000,000.00
Cost of sales	$15,000,000.00				$15,000,000.00	
Selling expenses	3,500,000.00				3,500,000.00	
Advertising	500,000.00				500,000.00	
Collection expenses	200,000.00				200,000.00	
Conting't loss—accts receivable	200,000.00		$ 150,000.00		50,000.00	
General office salaries	100,000.00				100,000.00	
Profit-sharing bonus of ex'tives	250,000.00				250,000.00	
Real & personal property taxes	50,000.00				50,000.00	
Capital-stock tax	5,000.00				5,000.00	
Special assessments	10,000.00		10,000.00			
Life insurance policy premiums	5,000.00		5,000.00			
Contributions—public subs'tion	25,000.00		25,000.00			
Employees' welfare contrib'ions	30,000.00				30,000.00	
Div.—domestic corporations		100,000.00		$ 100,000.00	100,000.00	100,000.00
Div.—foreign corporations		50,000.00				50,000.00
Interest received		10,000.00				10,000.00
Interest paid	250,000.00				250,000.00	
Bond discount written off	10,000.00				10,000.00	
Exp'ses in floating capital stock	50,000.00		50,000.00			
Provision for federal taxes	2,000,000.00		2,000,000.00			
Inventory reserve	500,000.00		500,000.00			
Net profits per books	2,475,000.00					
Non-allow'le deductions (net)				2,640,000.00		
Net taxable income					5,115,000.00	
	$25,160,000.00	$25,160,000.00	$2,740,000.00	$2,740,000.00	$25,160,000.00	$25,160,000.00

COMMENTS

(1) No details are given on provisions for depreciation, capital and revenue expenditures, etc.

(2) Collection expenses are assumed to have been actually expended and not included in part in the bad-debt reserve.

(3) By adding the year's provision for bad debts to the reserve at the beginning of the period and deducting the balance at the end the excess of bad debts collected over bad debts charged off is ascertained.

(4) The capital-stock tax is deductible (see art. 132).

(5) Special assessments for local benefits are not deductible unless for repairs.

(6) Premiums on life insurance policies are deductible only when the taxpayer is not a beneficiary thereunder. The principal, when paid, constitutes tax-free income to the individual, but taxable income to the corporation, in spite of the non-deductibility of premiums (art. 294, revised).

(7) Contributions to charitable and other corporations not subject to income tax are not deductible. However, donations to a pension fund controlled by employees or expended for the benefit of employees during the year is regarded as additional compensation to such employees and is deductible.

(8) Dividends from domestic corporations and from foreign corporations subject to United States income taxes are included in gross income and also in allowable deductions, and are therefore not subject to tax. Dividends from other foreign corporations are taxable. It is assumed that the foreign dividends here fall into the latter class.

(9) Bond discount written off is deductible if computed in accordance with standard accounting practice.

(10) Expenses connected with the issuance of capital stock are regarded as capital expenditures and therefore not deductible, no matter what procedure is followed on the corporation's books.

(11) Federal income and excess-profits taxes or provisions therefor are regarded as distributions of profits rather than expenses.

(12) The addition to the inventory reserve is deductible if it represents the difference between cost and market. On the balance-sheet, however, the $500,000.00 provision for 1920 has been added to a similar provision existing at the end of 1919, and has all the appearance of a contingent reserve rather than a valuation account.

(b) *Invested capital:*

Capital stock, surplus and reserves:

Capital stock:		
Preferred	$1,500,000.00	
Common	2,500,000.00	$4,000,000.00
Earned surplus		2,150,000.00
Appropriated surplus and non-deductible reserves:		
Contingent reserve	$ 250,000.00	
Inventory reserve	500,000.00	
Bad-debt reserves	100,000.00	
Provision for federal taxes	700,000.00	
Preferred stock redemption fund	150,000.00	1,700,000.00
Total		$7,850,000.00

Less deduction on account of goodwill:		
Goodwill acquired in 1910 for stock.....	$1,500,000.00	
Less limitation to 25% of par value of stock outstanding March 3, 1917 (i. e., 25%, $4,150,000.00).....	1,037,500.00	462,500.00
Balance		$7,387,500.00
Changes in invested capital during year:		
Additions—Common stock sold:		
Aug. 31: 123/365 of $500,000.....	$ 168,493.15	
Oct. 31: 62/365 of $500,000.....	84,931.51	253,424.66
		$7,640,924.66
Deductions:		
Federal taxes 42.260274% of $800,000.	$ 338,082.19	
Dividends:		
Jan. 31: 335/365 of $20,000.00.....	18,356.16	
Feb. 28: 307/365 of $250,000.00.....	210,273.97	
The remaining dividends paid during 1920, as well as the retirement of preferred stock, are amply covered by profits earned during year.....		566,712.32
		$7,074,212.34
Deduction on account of inadmissible asset:		
Percentage as shown below (2,096%)...		148,275.49
Balance—invested capital for tax purposes		$6,925,936.85

Federal taxes are regarded as being paid from the surplus of the prior year; the fraction for 1920 is 42.144809%. The difference between this rate and the 42.260274% under "deductions" above is caused by the fact that 1920 had 366 days. This computation is, of course, based on the exact number of days.

COMPUTATION OF INADMISSIBLE PERCENTAGE

Average inadmissibles held.....		$250,000.00
Average all assets held	*1920*	
Particulars	*January 1*	*December 31*
Total per balance-sheet.....	$11,450,000.00	$15,530,000.00
Less—Depreciation reserve.....	$ 500,000.00	$ 700,000.00
Reduction of goodwill.....	462,500.00	462,500.00
Capital surplus (revaluation).....	500,000.00	500,000.00
	$ 1,462,500.00	$ 1,662,500.00
Balance—admissible and inadmissible assets.	$ 9,987,500.00	$13,867,500.00
Average for year (½ sum).....		$11,927,500.00
Ratio of average inadmissibles to average all assets		2.096%

COMMENTS

(1) It may be noted here that reasonable commissions on the sale of stock are an admissible asset, inasmuch as they may not be deducted from gross income (T. B. R. 40).

(2) The portion of the capital surplus account which represents realized appreciation (i. e., the excess of allowable depreciation deductions based on 1913 valuations over similar computations based on cost) may be included in invested capital. However, the entire amount has been excluded, since the problem is silent on depreciation provisions.

(c) *Computation of tax payable:*

The tax payable may be computed according to the formula applicable to cases in which the invested capital exceeds $71,428.57 and the net taxable income is more than 20% of the invested capital, as follows:

Formula: 46% income — 5.04% invested capital — $740.

Solving:

46% income		$2,352,900.00
Less—5.04% invested capital.....	$349,067.22	
Specified exemption	740.00	349,807.22
Tax payable		$2,003,092.78

Question 2:

A company was incorporated as of January 1, 1920, to take over certain mines. The properties had been operated for some time by a receiver, the bondholders having bid in the properties at a foreclosure sale through a committee which turned over the properties to the new company.

The plan of reorganization provided for the issuance to the bondholders of the old company of $1,000,000.00 preferred stock and 10,000 shares of common stock of no par value of the new company, being its entire capitalization. An arrangement was made whereby the stockholders receiving such securities returned to the treasury of the new company as a donation 2,500 shares of common stock, with the understanding that such shares should be issued to the president for services to be rendered during the next five years, delivery of such stock to be made to him 1/5 at the end of each year.

The properties and assets acquired by the new company were as follows:

Mines and fixed properties	$1,800,000.00
Current assets	300,000.00
	$2,100,000.00
Less current liabilities	200,000.00
Net assets	$1,900,000.00

(1) Prepare an opening entry to record the acquisition of the properties and capitalization.

(2) How would you treat the 2,5000 shares donated by the stockholders?

(3) How would the accounts of the next five years be affected by delivery to the manager of 1/5 of such donated stock at the close of each year?

Solution, Question 2:

(1) Opening entry:

Mines and fixed properties	$1,800,000.00	
Current assets	300,000.00	
Current liabilities		$ 200,000.00
Capital stock preferred		1,000,000.00
Capital stock common—no par value.		900,000.00
To record acquisition of assets and assumption of liabilities of the —— Company in receivership and the issuing to the bondholders in control of said company the following stock for the net assets:		
10,000 shares preferred—par 100		
10,000 shares common—no par		

(2) Treatment of donations:

Treasury stock—common	$225,000.00	
Capital surplus		$225,000.00
To record donation of 2,500 shares of no par value stock to be paid to president for services, at the rate of 500 shares a year for 5 years.		

(3) An entry should be made at the close of each year charging salaries and crediting treasury stock $45,000.00.

The charge should be made to salaries and not to capital surplus, because the president's salary is an operating expense—the fact that it is paid in assets which have been donated is immaterial. The two transactions are distinct. The gift is an extraneous affair not related to operations. The salary is an operating charge affecting the operating surplus.

It might seem that the entry each year should be made at the value of the stock on the various dates instead of at $45,000.00. Suppose, for instance, that earnings of $150,000.00 have been credited to the capital stock common account at the end of the first year. The value of the outstanding common stock would be (assuming that preferred dividends have been paid):

Capital stock common:

Paid in	$ 900,000.00
Earnings	150,000.00
Total	$1,050,000.00
Less treasury stock	225,000.00
Net	825,000.00
Add capital surplus	225,000.00
Value of 7,500 shares outstanding	$1,050,000.00
Value per share of outstanding stock	140.00

If an attempt were made to make the entry for $140.00 x 500, or $70,000.00, the debit to salaries would be offset by a credit to treasury stock of $45,000.00 and a credit to surplus of $25,000.00. The extra charge to salaries and credit to surplus would offset each other without accomplishing anything. While the president would receive securities worth more than $45,000.00, the extra value is not paid by the corporation, but is the result of, or rather results in, a reduction of the book value of all common shares to an amount less than $140.00.

INCOME TAX AND BONUS

On pages 231 to 234 of the September, 1920, issue of THE JOURNAL OF ACCOUNTANCY there appears a letter from a reader of the *Students' Department* explaining a short method of computing the amount of a bonus to be paid to an employee of a corporation when the federal income and excess profits taxes are to be considered an expense before arriving at the basis of the tax. One sentence of this letter is misleading and should be corrected. This sentence is on page 233, and reads as follows:

"When the bonus comes out of the 40% bracket the amount of the bonus before figuring taxes plus 4.8217813% of itself will give the final bonus."

The sentence should read as follows:

"When the bonus comes out of the 40% bracket, the amount of the bonus after figuring taxes as though the bonus were not an allowable deduction, plus 4.8217813% of itself will give the final bonus."

Pace & Pace, New York, announce that Charles T. Bryan has been admitted to the firm.

August J. Saxer announces the removal of his office to suite 802 La Salle building, St. Louis.

Edward Clifton Smith announces the removal of his New York office to 15 Park Row.

Charles Frost announces the opening of an office at 1482 Broadway, New York.

George K. Hyslop announces the opening of an office at 42 Broadway, New York.

William Topper announces the removal of his office to 29 Broadway, New York.

Marwick, Mitchell & Co. announce the opening of an office in the Horter building, Plaza de Armas, Obispo and Oficios streets, Havana, under the supervision of S. L. G. Sutherland, with R. J. Austin as resident manager.

William D. Brash and M. L. Blanchard announce the formation of a partnership under the name of Brash & Blanchard, with offices at 18 Asylum street, Hartford, Connecticut, and World Tower building, New York.

Scovell, Wellington & Co. announce that the following have been admitted to partnership in the firm: J. Chester Crandell, F. Richmond Fletcher, William A. Schick, Harold S. Morse, Horace G. Crockett.

E. L. Bundy, M. A. Bundy and H. A. Raun announce the formation of a partnership under the designation Commercial Accounting Association, with offices at 842 Book building, Detroit, Michigan.

William Dillon, 67 Milk street, Boston, Massachusetts, announces that Schuyler Dillon has been admitted to the firm, which will continue in practice under the name of William Dillon & Son.

Snyder & Co. and Richter & Co. announce the consolidation of their practices under the firm name of Richter & Co., with offices in the Farmers' Bank building, Pittsburgh, Pennsylvania.

James F. Welch announces that he has admitted James J. Hastings to partnership. The firm name will be Welch & Hastings, with offices in Paterson, New York and Washington.

Smith & Scheuring Audit Company, of Green Bay, Wisconsin, announce the admission to partnership of Frank J. Jonet and the change of the firm name to Smith, Scheuring & Jonet.

MacHugh, Hill & Co., 277 Pine street, San Francisco, California, announce that they have succeeded to the practice formerly conducted by MacHugh & Garretson.

Arthur Young & Co. announce the opening of an office at 416 Pacific Finance building, Los Angeles, California, under the direction of George E. Dell, resident partner.

Frederick B. Emerson announces the opening of an office at 522-523 North American building, Philadelphia, Pennsylvania.

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A Proposal for Junior C. P. A. Examinations*

By J. A. Bexell

It is a trite saying that the demand for accountants far exceeds the supply. The tremendous growth of the accounting profession since the organization of the American Association of Public Accountants in 1887 far exceeds the fondest hopes of the founders of the accounting fraternity. Laws have been enacted in all states except one regulating the practice of the profession. High schools, colleges and universities are vying with each other to establish courses in accounting. The American Institute of Accountants is carrying on a splendid educational programme and the American Association of University Instructors in Accounting is doing its share to raise the standard of accounting education. In spite of all the educational activities, I know of no locality where there is an adequate supply of trained accountants. This is particularly true of assistants, or junior accountants, who must perform a large share of the routine work of accounting investigations.

FAILURES IN EXAMINATIONS

That the training of accounting students is defective is amply evident from the small percentage of applicants who pass the C. P. A. examinations. Accurate data are not at hand, but it is safe to assume that more than seventy-five per cent fail in their first attempt to pass the state examinations. That this is not due entirely to defective instruction has been recognized by the American Institute of Accountants in providing a uniform examination from which unessentials and "catch problems" shall be eliminated. In the writer's opinion, the failures are due to three principal defects in accounting instruction: (1) unfamiliarity

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with the requirements of the state authorities on the part of the instructors and hence also on the part of the students; (2) lack of practical experience, evident from the fact that a very large percentage of failures is found in the practical part of the examinations; and (3) inexperience of the student in taking long examinations and solving long problems under pressure. This inexperience often causes excessive nervousness, so that the student's ability is inaccurately reflected in the examination.

REMEDIES

The remedy for the first defect lies, of course, primarily in the instructors and in the activities of the accounting associations, national, state and local. The uniform examination of the American Institute of Accountants and the excellent *Students' Department* of THE JOURNAL OF ACCOUNTANCY will do much to familiarize instructors and students with the requirements of the various state boards. Unfamiliarity with accounting practice can be remedied only by experience and practice in the solution of typical problems of wide variety. The prospective public accountant is in much the same position as the doctor of medicine. I know of no state which does not require at least one year's experience in an approved hospital before the candidate is allowed to apply for examination. To be sure, the various state laws require experience in practical accounting, but the requirement is too often perfunctory, if not altogether waived.

The third defect can be remedied only by practice in taking examinations and working under pressure. This should be one of the indirect advantages secured from a junior examination. Stimulated by the requirements of the junior examination, the courses of study and the instructors should be able to remedy in great part this defect. After the required training in the class room in the solution of C. P. A. problems, the student should be well prepared to take the examination set by the state board and conducted under its auspices.

AMENDMENT OF THE UNIFORM LAW

Section seven of the uniform C. P. A. law proposed by the American Institute of Accountants reads as follows:

"Written examinations of applicants shall be held as often as may be necessary in the opinion of the board and at such times

and places as it may designate, but not less than once in each calendar year. If five or more persons apply for examination within not less than four months after the annual examination, the board shall hold an examination for said applicants. Examinations may be both oral and written, at the discretion of the board."

This section should be amended by adding: "Upon application of the president of a properly accredited school giving instruction in the subjects covered by the C. P. A. examinations, the board may set a junior examination for duly qualified students recommended by the presidents of such institutions. Students who pass this examination shall receive certificates of proficiency as junior accountants." Required fees for preparing and conducting the examinations, grading papers, certificates and other details should be specified in the law or by board regulations.

My suggestion would be that a representative of the board conduct the examination whenever possible, but examinations could be conducted on the same plan as the civil service examinations by authorized local representatives.

SCOPE OF THE EXAMINATION

The scope of the uniform junior examination should be the same as the regular examination and equally difficult. The scope is stated in section eight of the uniform C. P. A. law:

"The written examination of applicants shall at least cover the four general subjects, with a minimum time allowance, as follows:

(a)	Theory of accounts	3 hours
(b)	Practical accounting	6 hours
(c)	Auditing	3 hours
(d)	Commercial law	3 hours

and such other subjects as may be required by the board. Seventy-five per cent shall be required in each subject."

A complete file of all who pass should be kept in the office of the board for the use of the accounting profession. The holder of a junior certificate should be entitled to take the state C. P. A. examination after a year's service in an accountant's office.

ADVANTAGES OF THE JUNIOR EXAMINATION

I shall merely enumerate some of the many advantages of the junior examination:

1. It would stimulate an interest in accounting courses of study in the higher schools of commerce by setting a definite goal for the student.

2. It would afford more definite training in the essentials and eliminate many unessentials from the courses of study and from the examination.

3. It would establish more definite relations between the professional accountants and the accounting instructors.

4. It would tend toward standardizing and improving courses in accounting and auditing.

5. Accounting examinations and requirements for graduation would be standardized.

6. It should have a tendency to develop uniform text-book and laboratory material in accounting and auditing.

7. It would familiarize the student with the duties of the junior accountant.

8. It would call for practice in taking examinations and solving long accounting problems under pressure.

9. It would tend to eliminate undesirable candidates and thus reduce the percentage of failures in C. P. A. examinations.

10. It would afford a definite source of supply of junior accountants.

12. An increased supply of competent instructors in accounting would be available.

Nearly all the advantages enumerated are so obvious that they need only be mentioned. Two or three are so important that they deserve emphasis.

Chief among the advantages mentioned is doubtless the interest in accounting education which would be stimulated by this examination. The definite goal toward which the student would have to work would in itself be a very great advantage.

The third advantage, namely, the establishment of definite relations between professional accountants and instructors, is an actual need at present. Except in a few states, there is a wide chasm between the schools and the practising accountants, which should be bridged. The practising accountants claim that the

schools are too theoretical, and the schools in turn are unfamiliar with the practical work of the accountants, with the result that lack of interest in each other's work is evident.

The last named advantage—the supply the examination would create of instructors in accounting—would be of great value. At present it is almost impossible to secure competent instructors in accounting and business management. Unless an instructor has the qualifications required of a junior accountant, he is of little value in the class room.

EXPENSES OF THE EXAMINATION

There should be no difficulty in meeting the expenses of the examinations. No reasonable objection could be raised against charging a fee of from five to ten dollars to defray the cost of preparing examinations, supervising them, grading the papers and furnishing the certificates. A fee of ten dollars would amply cover all such expenses and would leave a margin to defray expenses of investigation and promotion.

COMPARED WITH JUNIOR PHARMACY EXAMINATIONS

The proposed examination for junior accountants would be similar to examinations which are given three times a year in Oregon to junior pharmacists. The board of pharmacy is charged with the duty of setting both a senior and a junior examination at such times and places as are convenient. The present regulations are that junior examinations may be taken either in Portland or at the Oregon agricultural college three times a year. The applicant must be eighteen years of age, have spent one year in a drug store and attended an approved school of pharmacy for at least twenty-four months. He is examined in five subjects and must not fall below sixty-five per cent in any one subject. A fee of ten dollars is charged for the expenses incident to conducting the examination. Two members of the board usually spend two days at the college, which makes it unnecessary for students to leave the college to take the examination in Portland. This is a considerable saving, as quite a number of students take the examination each year. During the last few years, not a single junior has failed to pass the examination. After an additional year's practice, the student is allowed to take the senior examination under the same regulations as those of the junior

examination; and upon passing this he is given a state certificate to practise pharmacy. It occurs to me that practically the same regulation in reference to the junior examination in accounting could be established.

PROGRAMME MAY BE ADOPTED GRADUALLY

I realize that the programme mapped out in the preceding suggestions is a large one and that its accomplishment would probably have to be brought about gradually. Indeed, perhaps the best solution would be to have the Association of University Instructors in Accounting assume the responsibility of encouraging such examinations for a year or two, with a view to determining exactly what should be recommended. Among other advantages, it would furnish an immediate field of useful activity for this association. The usual experience of an association like this is that unless it is stimulated by a definite programme of work, it is difficult to maintain enthusiastic interest.

RECOMMENDATIONS

Finally, I venture to make the following definite recommendations for consideration at this meeting:

1. That this association recommend an amendment of the uniform examination law providing for junior examinations.
2. That a uniform course of study be recommended leading to the junior examinations.
3. That one year's practice in an accountant's office and the junior certificate be the standard requirements of eligibility to the state examinations.
4. That instructors in accounting bring this subject before accountants with a view to interesting them in accounting instruction and junior examinations.
5. That a committee of five be appointed to devise plans to carry out the above resolutions.

Treatment of Commitments of Purchasers, Etc., on Certified Balance-Sheets

By Homer N. Sweet

The impossible task has been assigned to me of presenting in twenty minutes a comprehensive exposition of a topic which contains the letters, "etc." In the circumstances, I shall have to seek refuge behind a narrow definition of commitments, which will excuse me from speaking on contingent liabilities that arise from guaranties of quality of product, guaranties of dividend and interest obligations of allied companies, endorsements of notes and acceptances, provisions for cumulative dividends on preferred stocks and possible liability to additional assessments for federal taxes. I would restrict my discussion to commitments that involve more than ordinary risk of loss because of the possibility of an adverse movement of prices. Among commitments of this class are purchase contracts, sale contracts, agreements to protect the buyer against a decline in market price and various transactions that are hedged by futures or options. As my time is limited I shall confine myself principally to a consideration of purchase contracts.

Before proceeding, however, to analyze the relation of purchase contracts to the balance-sheet we may do well to ask ourselves two questions:

First: Why should commitments be expressed on the balance-sheet? Perhaps we should not take too much for granted as to the answer which ought to be given to this question. The balance-sheet, as a condensed exhibit of financial position, should set forth all relevant facts. On the other hand, it should not be encumbered with irrelevant data. What is relevant or irrelevant is, of course, a question of judgment. If it is probable that a given corporation will have to expend in the near future a larger sum of money for purchases of materials than the mater-

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ials will be worth in the market at the date of delivery, then there is a prospect of loss, and if the amount is considerable, the probability of loss is relevant to a thorough interpretation of financial position. It ought not to be omitted from the balance-sheet.

The other question is: To what extent should an auditor be governed by transactions or developments occurring subsequent to the date of the balance-sheet and prior to the date of certification? In judging the financial position of a corporation as of a given date, should he look only upon the past and shut out entirely from view the prospects for the future? It is my opinion, as to a contingent liability, that if any development occurring after the date of the balance-sheet and prior to the date of certification materially modifies or possibly removes the contingency, that development ought to be considered in the preparation of the balance-sheet. On the other hand, if there should be an appreciable change in market prices subsequent to the date of the balance-sheet and prior to its preparation, it is in order for the auditor to take the most recent fluctuations into consideration in estimating any contingent loss. In brief, an audit should not be restricted altogether to transactions which have been concluded or have reached a precisely determinable status at the date of the balance-sheet.

A purchase contract in the ordinary sense does not become an actual liability until one of the parties to the contract makes a delivery of goods. For that reason it is not customary for accountants to include outstanding purchase contracts among the assets and liabilities on the balance-sheet. In a year like 1920, however, when we have witnessed a marked decline in the prices of many commodities—wool, silk, cotton, leather and others—it is to be expected that many corporations will have, at the date of closing their books, outstanding purchase contracts that were entered into when prices were on a much higher level. Many of these purchase contracts are binding and, according to the present outlook, will oblige the purchasers to take title to goods that will have a market value substantially less than cost. While vendors may grant extensions of credit by allowing deferred payments or agreeing to accept notes, thus permitting the buyers to husband their cash resources for a time, the probability of contingent loss is none the less imminent.

Purchase contracts give rise to three different classes of commitments, namely:

(1) Commitments which are normal in amount and are for materials that would have a market value, according to reasonable expectations, at least equal to cost on date of delivery.

(2) Commintments, abnormal in amount for the particular concern, the liquidation of which would produce an unprecedented strain on the concern's resources.

(3) Commitments, whether normal or abnormal in amount, which are for materials that would have a market value, according to reasonable expectations, measurably less than cost at date of delivery.

Purchase commitments of the first class need not be discussed because they do not involve prospective loss.

Let us illustrate the second class of purchase commitments by assuming that a corporation has entered into a contract for a large amount of material or for construction and that the contract is unfulfilled at the close of the fiscal year. If the corporation has not arranged for the financing of the exceptionally large expenditures and could not be relieved from abiding by the obligations of the contract, without serious consequences, there is a contingent demand upon working capital which should not be overlooked by the auditor. In any consideration of this sort the public accountant, of course, has to weigh carefully the interests of his clients. It is hazardous to generalize from the variety of cases met in actual practice, and, therefore, any general suggestion which might be made is subject to such qualifications as the special circumstances may demand. In an extreme case, the conclusion might be reached that a footnote ought to be appended to the balance-sheet, under the head of "commitments," reading somewhat as follows:

> "The company's contracts for purchase of material and for construction outstanding on .(date of balance-sheet). . aggregated $....., payable during ..(period of time)."

While examples of the class of commitments just considered are not common, there will be numerous illustrations of the third class of purchase commitments on balance-sheets of corporations

at December 31, 1920. What are the essential facts to be ascertained and reported with respect to contracts for purchase of materials that have a market value at the date of the balance-sheet (or at a date prior to date of certification) substantially less than cost? The most important data, in my opinion, are:

(1) Gross amount of commitments.
(2) Market value of materials at date of balance-sheet or at a more recent date prior to certification.
(3) Net probable loss (difference between 1 and 2).
(4) Period during which corporation will be allowed to liquidate the liabilities.
(5) Provisions for financing the contingent liability by sales, credits, loans or security issues.
(6) Protection, if any, against loss through sale contracts.

There are two possible methods of representing a contingent liability on the balance-sheet: one, a reserve account, which would be created by a debit to surplus, and the other a footnote under the head of "contingent liabilities." In my judgment, the form to be adopted is not vital, provided the essential facts are clearly set forth. Personally, I am inclined to prefer the use of the footnote, on the ground that there is uncertainty as to the occurrence of the liability and the amount of loss. A footnote relating to purchase commitments of the third class might be worded as follows:

> "The company's contracts for purchase of materials to be delivered during ....(period of time).... outstanding at ..(date of balance-sheet)... aggregated $..... or $..... more than the market value of the materials at .....(even date or more recent date)....."

or

> "On the basis of market values at ..(date of balance-sheet or more recent date). the purchase contracts unfulfilled at .....(date of balance-sheet)..... , aggregating $..... would show a contingent loss of approximately $....."

It has been suggested that the total amount of commitments be disclosed for the reason that the significance to be attached to the amount of contingent loss depends considerably on the gross amount of commitments. Should the amount of commitments

be large, provision for financing would be an important consideration and the footnote should be amplified accordingly. In some trades vendors have agreed to accept notes with six to twelve months' maturities for the difference between cost and market value of the materials purchased.

How is the market value of commitments to be determined? In speaking before another assembly last week on the subject of purchasing, I was asked whether purchase commitments should be controlled by a budget. That question and the answer thereto imply that records are usually available in the purchasing department to show the amount of outstanding commitments in terms of dollars. A well organized corporation will be able to supply that information at short notice. It should be the duty of an auditor, in the initial stages of his examination to call for a schedule that shall set forth in reasonable detail the outstanding commitments and the market values of the various items as estimated by the purchasing agent. If the purchasing agent asserts that he is unable to supply the data, then the auditor is confronted with the same sort of difficulty as that which he encounters not infrequently in the verification of ledger accounts which are not supported by adequate details. He must form an opinion from such data as he can collect as to the likelihood of any contingent loss arising from commitments.

I am nearing the end of my time limit, and will conclude with a brief consideration of sale contracts as related to purchase contracts. I have in mind a fairly common practice in some businesses. A sales order may be taken for a quantity of goods at a definite price and purchase orders may be placed later for sufficient quantities of raw materials to cover the requirements of the sales order. We may assume that the sale price and the purchase prices are consistent in the sense that there is sufficient margin between them to allow the manufacturer a profit. If the purchase and sale contracts are both unfulfilled at the close of the fiscal year and there has been a sharp decline in commodity prices, it may be essential to mention both contracts in any reference to contingent liability. The contracts should not be assumed to be offsetting because the sales contract may not be enforceable. Under the conditions of the trade, it may not be possible for a seller to force his customer to take the goods, and we all know that there have been great numbers of cancellations in recent months. Again,

if the customer should become financially embarrassed and forced into receivership, the receiver would have the option of repudiating the contract, a right which he would certainly exercise if the stipulated price was unfavorable to the bankrupt concern. For these two reasons the protection in a sales contract may be more apparent than real.

When there is an inter-relation of purchase and sale contracts, I suggest that the footnote in explanation of the contingent liability should be worded substantially as follows:

> "The company's contracts for purchase of materials to be delivered during ....(period of time)... outstanding at ..(date of balance-sheet).. aggregated $..... or $..... more than the market value of the materials at ..(even date or more recent date)". , but $..... is covered by sale contracts, leaving $..... as the net amount of possible loss."

If there is an inventory of goods which also apply against the sale contracts, the footnote might be expressed in the following manner:

> "The unfulfilled purchase contracts aggregate $..... .....at (date of balance-sheet) , and after applying thereto the unfulfilled sale contracts in excess of the inventory at ....(date of balance-sheet)...., would show, on the basis of market values at (date of balance-sheet or more recent date)....., a contingent loss of approximately $....."

Amendments of New York Income-tax Law

By Mark Graves

English history relates that the fiduciary of the court of chancery was the accountant. An examination of the returns on file in the New York state income-tax bureau will reveal that he continues to act as a trustee toward the state, because a goodly portion of the 800,000 returns filed in 1920 was prepared by the man skilled in accounts and to him should be accredited a share of the gratitude expressed by the bureau for the splendid response to the enactment of the statute.

With a few exceptions the original law remains unchanged. Therefore, a brief discussion will be given of the more important amendments in the order in which they appear in the several sections.

Subdivision 7 of section 385 presents a revision tending to clear up the technical interpretations of the word "resident." The change definitely declares that a resident for the purpose of determining liability to the tax imposed by the statute is "a person who shall at any time during the last six months of the calendar year" reside in the state of New York. This test of residence should be applied with reference to the income of any taxable year commencing with the year 1919.

Sections 351-a and 351-b provide for the re-imposition of the tax on non-residents. Following the decision of the United States supreme court, non-residents are allowed personal exemptions in the same amounts as residents.

Gross income as defined by section 359 now includes income to beneficiaries derived through estates or trusts whether as distributed or *distributable* shares. Care should be taken to include interest from investments upon which the investment tax (sec. 331—tax law) has been paid since May 14, 1919. In addition it must be remembered that pursuant to an opinion by the attorney-general, all income from investments upon which secured debt tax or mortgage tax was paid is subject to income tax. The investment-tax law was repealed by chapter 646 of the laws of 1920.

The amendment to section 360, sponsored by the income-tax

bureau, allowing the deduction of *all* interest paid or accrued during the taxable year on indebtedness, has met with general approval. Sub-divisions 5 and 6 state that the losses deductible by non-residents are limited to transactions in real property or tangible personal property having an actual situs within the state.

Broader scope is permitted in deductions for contributions. Under the present statute, a resident is entitled to deduct 15 per cent of his net income for contributions made to certain organizations regardless of their location or where organized. Non-residents, however, are limited generally to contributions made to organizations existing by virtue of New York laws.

Statements to the effect that the personal exemptions have been changed are not true. The law coincides with the federal statute permitting (a) $1,000 to a single person, (b) $2,000 to a married person and to the head of a family and (d) $200 for dependents. But to maintain the tranquillity of the home, the exemption must be equally divided between a husband and a wife making returns.

The rule in relation to credit for taxes in case of taxpayers other than residents of the state has been amended virtually to exempt income to non-residents derived from sources in this state, providing this income is taxed by the state or country where they reside, if the laws of such state or country exempt income to residents of this state from sources in the other state or country. No credit will be allowed non-residents on any income exempt from taxation under the laws of the other state or country if the income is taxable under the laws of New York.

The duty of deducting and withholding is imposed on employers with reference to fixed or determinable annual or periodical compensation paid to non-resident employees. The amount of personal exemption allowed the employee is set-off against the net income and the tax is imposed on amounts over and above such exemption.

Certificates of residence (form 101) and certificates of non-residence (form 102-revised) must be filed by the taxpayer with the withholding agent. A certificate showing the employee to be a resident of Massachusetts relieves the employer of the duty of deducting and withholding. In any case, if the employee left the service of the withholding agent prior to April 14, 1920, and was fully paid prior to that date, no obligation in respect to such pay-

ments rests on the withholding agent unless the status of employer and employee is again created during 1920 and further payments of compensation for personal service are made or credited in 1920.

Certificates filed with the employer by residents (form 101) should be retained by him and kept available for one year for examination by representatives of the comptroller's office. Forms 102-revised are to be used by non-residents for the purpose of claiming personal exemption. These are to be forwarded to the income-tax bureau by the withholding agent, with the return of tax withheld on form 103 and accompanied by payment of the tax withheld.

Returns of information (form 105) should be made for the calendar year and filed with the income-tax bureau on or before April 15th next. In cases in which actual withholding and report thereof is made, no return of information is necessary.

Probably the most important change is stated in section 371, providing that a return of income must be made on or before the 15th day of the fourth month following the close of the taxpayer's taxable year, if the return is made on the basis of a fiscal year, or, if the return is made on the basis of the calendar year, on or before the 15th day of April in the year following the close of the taxpayer's taxable year.

Accountants, no doubt, are interested in the ruling relating to valuation of inventories in 1920. Coincident with the federal treasury decision and cognizant of a declining market the comptroller's regulations permit merchants to value their 1920 inventories at "cost or market, whichever is lower," regardless of previous practice and without applying for permission to change. If this rule is adopted, the fact must be stated on the return. The change is limited to 1920 inventories, whether the end of the period is based on a fiscal year or a calendar year. Inventories taken on January 31, 1921, must be taken by the same method as previous inventories unless an amended return is filed for the period ended in 1920 or permission is granted for the later period ending in 1921.

Manufacturing Accounts*

By G. H. Newlove

NATURE AND FUNCTION OF COST ACCOUNTING

Cost accounting is that specialized application of the principles of accounting that results in the collection of the data to determine the cost of producing a unit of production in a factory. It is possible to obtain from the general books certain ideas as to the manufacturing costs, but it is quite impossible to obtain from the general accounts the cost of a particular unit of product in case more than one kind of article is turned out.

Cost finding, the method used in determining in advance what the cost of an article should be under existing conditions, must not be confused with cost accounting, the method of determining costs while the article is being produced.

The purposes of cost accounting are: (a) to determine the cost or the profit on each unit of product, (b) to determine the profitable lines for manufacture, (c) to secure accurate and perpetual inventories and (d) to secure information necessary to lay down wise managerial policies.

COMPONENTS OF COST DATA

The ordinary manufacturing concern naturally divides itself into three parts: a fabricating section, an administrative section and a selling section. Each of these sections has it own charges to contribute to the final cost of the product placed in the hands of the purchaser. The fabricating section, however, has three kinds of charges quite different in nature, namely, material, direct labor and overhead. Upon the addition of each of these various classes of expenses to the value charged against the product, a new kind of cost is secured, as shown in the following chart:

Material	Direct labor	Fac. overh'd	Selling exp.	General exp.
.....Prime cost.....				
.....Factory cost.....				
.....Selling cost.....				
.....Total cost.....				

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The outlays with which cost accounting is concerned include the charges necessary to put the product through the factory. The analysis of factory expenses demands an understanding of the terms "direct" and "indirect" as applied to labor. The cost of direct or productive labor is the charge for services rendered directly at the tool-point in the fabricating process. The cost of indirect labor is the outlay necessary to the conduct of plant, but is not directly chargeable to certain specific units of product, as the salaries of foremen, of timekeepers and of repairmen.

The usually accepted cost of raw materials is the invoice price plus in-freight. This cost, added to the cost of direct labor, makes up the prime cost. Manufacturing expense, or factory overhead, includes such charges as taxes, insurance, maintenance and depreciation of factory buildings and machinery, power, heat, light, superintendence and other indirect labor and miscellaneous supplies.

RELATION OF COST TO GENERAL ACCOUNTING

General accounting is the record of facts involving the economic relationship of the manufacturer to the world at large, while cost accounting is the record of facts involving the internal relationship of the various cost elements and production departments. General accounting is fiscal in its nature, while cost accounting is statistical.

Cost accounting is not a system per se to be set aside and distinguished, as we distinguish single-entry and double-entry as bookkeeping systems; it is rather the application of double-entry principles for the purpose of determining unit cost in manufacturing.

Manufacturing accounts are controlled by certain accounts in the financial books. This control may be accomplished by either of two general methods. Under the first, one account, termed "factory ledger," is used in the general ledger. This account is debited with all charges against manufacturing operation and credited with all products coming from the factory. A similar account in the factory ledger is used, bearing the name "general ledger," the entries to which are contra to those in the factory ledger account in the general books. The second method is to carry in the general ledger several accounts by means of which the cost accounts are controlled. Such general ledger accounts

would be "productive labor," "raw materials," "factory expense," "goods in process" and "cost of sales."

Wherever practicable, the factories are divided into departments, and departmental accounts are set up. The advantage of having separate departmental accounts for rent, depreciation, power, etc., can readily be seen from the fact that one department may have little machinery and a large amount of floor space, while another department may have very little floor space and very costly machinery.

COMPARISON OF COST AND NON-COST SYSTEMS

In order to illustrate the difference in the operation of the accounts under cost and non-cost systems, journal entries covering the various classes of transactions under the two systems will be tabulated and posted to the accounts given in a starting balance-sheet, which is the same under both systems, and then trial balances and financial statements will be drawn up for the accounts under each system.

JOHN KAY MANUFACTURING COMPANY

INITIAL BALANCE-SHEET

Assets		*Liabilities and capital*	
Cash	$ 3,000.00	Accounts payable	$ 4,000.00
Accounts receivable	2,000.00	Bonds payable	30,000.00
Raw materials	6,000.00	Capital stock	50,000.00
Finished goods	7,000.00	Surplus	12,000.00
Goods in process	3,000.00		
Plant and equipment	75,000.00		
	$96,000.00		$96,000.00

JOURNAL ENTRIES

Under non-cost system		Under cost system	
When purchases of raw materials are made:			
Raw materials	$50,000	Raw materials	$50,000
Accounts payable.	$50,000	Accounts payable.	$50,000
When raw materials are requisitioned:			
(No entry)		Goods in process	$45,000
		Raw materials	$45,000
When productive labor is paid:			
Productive labor	$30,000	Goods in process	$30,000
Cash	$30,000	Cash	$30,000
When factory expense is incurred:			
Factory expense	$10,000	Factory expense	$10,000
Cash	$10,000	Cash	$10,000
When factory expense is prorated over jobs:			
(Not done)		Goods in process	$10,000
		Factory expense.	$10,000

Under non-cost system			Under cost system		
When operating expenses are incurred:					
Salesmen's salaries.	$2,500		Salesmen's salaries.	$2,500	
Advertising	1,000		Advertising	1,000	
Office expense.....	3,000		Office expense.....	3,000	
Legal expense.....	500		Legal expense.....	500	
Cash		$7,000	Cash		$7,000
When non-operating expenses are incurred:					
Interest expense...	$2,000		Interest expense....	$2,000	
Cash		$2,000	Cash		$2,000
When work in process is completed:					
(No entry)			Finished goods.....	$80,000	
Goods in process..					$80,000
When sales are made:					
Accounts receivable.	$125,000		Accounts receivable.	$125,000	
Sales		$125,000	Sales		$125,000
When non-operating profits are made:					
Cash	$1,000		Cash	$1,000	
Interest earned..		$1,000	Interest earned...		$1,000
When creditors are paid:					
Accounts payable...	$45,000		Accounts payable..	$45,000	
Discount on purchases		$2,000	Discount on purchases		$2,000
Cash		43,000	Cash		43,000
When customers settle their accounts:					
Cash	$105,000		Cash	$105,000	
Acc'ts receivable.		$105,000	Acc'ts receivable.		$105,000
When cost of sales for period is determined:					
(No entry)			Cost of sales.....	$75,000	
Finished goods...					$75,000

TRIAL BALANCES

	Non-cost		*Cost*	
Cash	$ 17,000.00		$ 17,000.00	
Accounts receivable...	22,000.00		22,000.00	
Raw materials.....	56,000.00		11,000.00	
Goods in process.....	3,000.00		8,000.00	
Finished goods.....	7,000.00		12,000.00	
Plant and equipment..	75,000.00		75,000.00	
Productive labor.....	30,000.00		nil	
Factory expense.....	10,000.00		nil	
Cost of sales.....	nil		75,000.00	
Salesmen's salaries...	2,500.00		2,500.00	
Advertising	1,000.00		1,000.00	
Office expense.....	3,000.00		3,000.00	
Legal expense.....	500.00		500.00	
Interest expense.....	2,000.00		2,000.00	
Accounts payable.....		$ 9,000.00		$ 9,000.00
Bonds payable.....		30,000.00		30,000.00
Capital stock.....		50,000.00		50,000.00
Surplus		12,000.00		12,000.00
Sales		125,000.00		125,000.00
Interest earned.....		1,000.00		1,000.00
Discount on purchases		2,000.00		2,000.00
	$229,000.00	$229,000.00	$229,000.00	$229,000.00

From the above it can be seen that the non-cost trial balance can be turned into the cost system trial balance by the following journal entry:

Goods in process	$ 5,000.00	
Finished goods	5,000.00	
Cost of sales	75,000.00	
Raw materials		$45,000.00
Productive labor		30,000.00
Factory expense		10,000.00

The above credit items, totaling $85,000, represent the total manufacturing cost charged to goods in process. Of this, $80,000 represents the production costs of goods in process completed during the period and transferred to the finished goods account, and the remaining $5,000 represents the amount added to the inventory of the goods in process. Of the $80,000 charged to the finished goods account, $75,000 represents the production cost of the goods sold that was transferred from the finished goods account to the cost of sales account, and the remainder represents the amount added to the finished goods inventory.

Before a financial statement can be made from the non-cost trial balance, the inventories must be ascertained. The inventories are: raw materials $11,000, goods in process $8,000, and finished goods $12,000. It will be noted that these inventories are the balances of the respective accounts in the cost system trial balance.

The balance-sheet is the same for both systems of accounting, so the following statement is the balance-sheet that would be obtained from both trial balances:

JOHN KAY MANUFACTURING COMPANY

FINAL BALANCE-SHEET

Assets		*Liabilities and capital*	
Cash	$ 17,000.00	Accounts payable	$ 9,000.00
Accounts receivable	22,000.00	Bonds payable	30,000.00
Raw materials	11,000.00	Capital stock	50,000.00
Goods in process	8,000.00	Surplus	56,000.00
Finished goods	12,000.00		
Plant and equipment	75,000.00		
	$145,000.00		$145,000.00

As cost accounting is merely an addition to financial accounting, which by internal adjustments shows the cost of the goods manufactured, the following profit and loss statements show that the statements obtained from the cost and non-cost trial bal-

ances are identical, after the gross profit on sales has been obtained.

KINDS OF COST SYSTEMS

The particular cost system established, the method of control and the accounts used must depend upon the type of business. The collection of costs is dependent upon the manner in which articles proceed through the processes of manufacture. Where a practically steady flow of material is put into operation and goes uninterruptedly through the plant to turn out a uniform product, one lot of material following another without relation to a particular order or article, the "product system" of calculating costs is used; and where unlike orders are put through the plant, each having its own special list of material and method of processing, costs are collected upon each order or job, under the "special order system."

There are also two general methods of applying costs over the product, known as the "productive labor method" and the "process method." Under the first named, the costs of labor (figured by hours or by wages) and of material are charged against the product or order direct, and to this total is added a pro rata share of the indirect expenses, determined by the amount or the time of the productive labor used to produce that product or order, the grand total being manufacturing cost. Under the "process method," all charges are made against the various processes or operations, and the total cost so ascertained is then distributed over the product on a convenient basis, weight, number or measure, according to the nature of the product.

A specialized form of the "process method" of distributing expenses, applicable where the greater part of the processing is done by machines, is called the "machine cost method." All indirect expenses having been calculated for a given period, each element of the total is charged against various machines or groups of machines, according to the floor space or some other equitable basis, so that the grand total of manufacturing expense for the period is charged to all the machines in the plant. Then, as a machine or group of machines is used to work upon product, the machine is credited at a predetermined rate with the work done. Thus the product is charged with a certain amount which represents practically all indirect charges of a certain operation, the factory being credited at the same time through the machine for

JOHN KAY MANUFACTURING COMPANY

PROFIT AND LOSS STATEMENT (DATE)

	Under non-cost system			Under cost system		
Sales			$125,000.00			$125,0000.00
Cost of sales:						
Raw materials:						
Initial inventory and purchases	$56,000.00					
Final inventory	11,000.00	$45,000.00				
Productive labor		30,000.00				
Factory expense		10,000.00				
		$85,000.00				
Goods in process:						
Final inventory	$ 8,000.00					
Initial inventory	3,000.00	5,000.00				
		$80,000.00				
Finished goods:						
Final inventory	$12,000.00					
Initial inventory	7,000.00	5,000.00	75,000.00			75,000.00
Gross profit on sales			$50,000.00			$50,000.00
Operating expenses:						
Selling expenses:						
Salesmen's salaries	$ 2,500.00			$2,500.00		
Advertising	1,000.00	$ 3,500.00		1,000.00	$3,500.00	
General expenses:						
Office expenses	$ 3,000.00			$3,000.00		
Legal expense	500.00	3,500.00	7,000.00	500.00	3,500.00	7,000.00
Net profit on sales			$43,000.00			$43,000.00
Non-operating items:						
Income:						
Discount on purchases	$ 2,000.00			$2,000.00		
Interest earned	1,000.00	$ 3,000.00		1,000.00	$3,000.00	
Expense:						
Interest expense		2,000.00	1,000.00		2,000.00	1,000.00
Net profit for period			$44,000.00			$44,000.00
Appropriation of profits: surplus			44,000.00			44,000.00

a like amount. If at the end of a given period all machine charges have been balanced by credits representing work done upon product, the entire indirect expenses have been absorbed by product. Any amount remaining represents charges incurred, which must be spread over product in some other way. Usually the unit of measurement taken is the "machine hour"; that is, the total charge against a machine is divided by the number of hours of running time of the factory over the period considered. Product is then charged and the machine credited with the machine's hourly burden rate multiplied by the number of hours the machine works. If the machine fails to run full time it will have a debit standing against it at the end of the period. This debit is due principally to idle time, and is ordinarily absorbed by a "supplementary rate" added to the product sufficient in size to cover the deficiency.

Combinations of the two systems of collecting costs and the two methods of distributing them produce the four general types of cost accounting systems: (a) special order system, distributing indirect expense by the productive labor method; (b) special order system, distributing by the process or machine cost method; (c) product system, distributing by the productive labor method; (d) product system, distributing by the process or machine cost method.

One or other of these types can be used in any factory. The choice between the special order and the product systems depends on the nature of the product, uniformity being required for successful operation of the product system. The method of distributing factory burden should be chosen according to the importance of labor and machinery in production. Factories where labor is the predominating element should use the direct labor method as the basis of prorating burden, while those where expensive and complicated machinery predominates should use the process or machine cost method.

CONTROL OF MATERIAL

When material is received, checked and delivered into storage, record of the transaction is made both in the financial books and the cost records. In the financial books, the entry is usually made in the voucher register, debiting raw materials and crediting vouchers payable. In the cost records, the individual items are

entered in a stores ledger, wherein an account is kept with each item of stock. The stores ledger thus carries the particulars of the materials carried in the general ledger.

The effect of the issue of materials from the store room to be put into production is a debit to the goods in process account and a credit to the materials account. It is customary for this entry to be made through a "transfer outward" journal. If any of the material so issued is later returned to stock, a reverse entry is used to cover the transaction.

The charge for materials which is to be entered against a specified unit of product is obtained by the use of a lot number or job number. The requisition ticket, bill of material or other paper, which authorizes the removal of material from store rooms, contains a space in which is placed the number against which it is to be charged. The various amounts chargeable against a certain job are later assembled on a cost sheet or in a cost journal.

The individual records of raw materials show the balances which should be on hand. The balance of the raw material account shows the money value of these materials, which the stores records usually carry both by number and value. The stores records should be compared with physical counts made independently of the materials records. In this way there are three sources from which a careful scrutiny of materials may be made, viz., the control account in the financial books, the stores ledger accounts and the physical inventory.

CONTROL OF LABOR COSTS

The purposes served by a proper accounting for labor are three: (a) the measuring of the relative efficiency of labor as to production value; (b) the discovery of means of increasing production and lowering costs; and (c) the determination of a basis for distributing overhead expenses.

The charges for labor are secured originally from a time card or time-ticket which shows the operator, the operation, the time worked and the job or lot to which the cost is chargeable, also whether the labor is to be classed as direct or indirect.

WAGE SYSTEMS

The more commonly employed plans of paying wages are as follows:

(a) Day rate.—A flat rate per day regardless of output.

(b) Piece work.—A flat rate per unit of output.

(c) Differential rate.—A rate per unit of output, which increases when output is increased.

(e) Premium plan.—A flat rate per hour plus extra pay for time saved; the time saved equals difference between standardized and actual time.

(f) Bonus plan.—A rate per hour which increases when output is increased.

(g) Stint plan.—A flat day rate, with privilege of going home when the assigned day's work is completed.

The above mentioned plans contain the main points of divergence, but there are a large number of combinations of systems. For instance, Santa Fe efficiency plan has a standardized output which is regarded as 100 per cent efficiency, all other outputs being scaled as percentages of efficiency. The workmen are paid by the hour, the hourly rate consisting of a guaranteed flat amount plus an additional amount which varies according to the efficiency of the workmen. Thus the Santa Fe plan combines the day rate plan and a rather complicated bonus plan.

CONTROL OF MANUFACTURING EXPENSES

As it is not practicable to ascertain the exact amount of the manufacturing expenses that have occurred during the time a given job or order is in process, some sort of estimate is made to cover the job. Distribution of expenses over product may be made upon any number of the following bases: (a) cost of productive labor, (b) cost of direct materials, (c) prime cost, (d) hours of labor spent, (e) units of product and (f) machine hours. The use of each of these methods is indicated in the following table:

			Cost of job under various methods of pro-rating burden					
	Last year factory	This year job No. 6	Labor cost	Material cost	Prime cost	Labor hours	Units of product	Machine hours
Material cost.	$10,000	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00
Labor cost..	16,000	1.60	1.60	1.60	1.60	1.60	1.60	1.60
Burden cost.	14,000	(?)	1.40*a*	1.40*b*	1.40*c*	1.50*d*	1.40*e*	1.32*f*
Labor hours..	56,000	6						
Mach. hours.	42,000	4						
Pieces made..	10,000	1						
			$4.00	$4.00	$4.00	$4.10	$4.00	$3.92

a (14,000 ÷ 16,000) × $1.60.
b (14,000 ÷ 10,000) × $1.00.
c (14,000 ÷ 26,000) × $2.60.
d ($16,000 ÷ 56,000) × 6.
e ($14,000 ÷ 10,000) × 1.
f ($14,000 ÷ 42,000) × 4.

When the estimates of indirect expenses are made at the beginning of the period, the estimated total is debited to the "manufacturing expense in goods in process" account and credited to the factory expense account (the account used to collect all such outlays). When the burden is prorated to the product the goods in process account is debited and the "manufacturing expense in goods in process" account credited. When these entries are made, failure of the factory expense account to balance at the end of the period will indicate an under or over distribution of the manufacturing expenses of the factory. A balance in the "manufacturing expense in goods in process" account shows that certain manufacturing expenses have been charged or are yet to be charged on the cost cards of the unfinished orders, jobs or contracts at the close of the period.

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EDITORIAL

Schools and Schools

The results of the November, 1920, examinations of the American Institute of Accountants afford an impressive commentary on the present tendency of accountancy education. Out of a total of 820 candidates for certified public accountant certificates of states co-operating with the institute only 110 passed. This percentage (a little over 13 per cent) is the lowest recorded by the board of examiners, but the record has been growing steadily worse. For instance, the average of successes among the candidates in the five examinations from May, 1917, to May, 1919, inclusive, was 49 per cent, while the average for the next three examinations was barely 25 per cent. The percentage of successes of applicants for admission to the institute was of course much higher (almost 70 per cent), as the institute has rigid preliminary practice requirements. Our comments in these notes refer only to candidates for state certificates.

It will be noted by those who follow the course of accountancy development that the number of applicants for certified public accountant certificates has increased with considerable rapidity. The general interest in the profession and the opportunities which it offers are sufficiently magnetic to attract a great many young men and some older men. The cause of this large and increasing percentage of failures in the certified public accountant examinations is, therefore, a subject of importance to both the practising accountant and the student.

Many of the applicants, of course, have no qualifications whatever to justify them in believing that they will ever qualify as certified public accountants. Many others regard the certified

public accountant certificate as an ornament to put on the office wall and have no immediate intention or perhaps no intention at all of entering the public accounting field. These, perhaps, feel that they can demand a larger salary or better consideration of some other kind from their employers or those with whom they are associated if they have the privilege of appending to their names the initials "C. P. A." With the failure of such persons we are not greatly concerned.

There are, however, many among the applicants who honestly intend to enter public accounting and in their haste to achieve success undertake the examinations long before they are sufficiently prepared. Many states make no requirement of public practice prior to examination. Other states have a practice requirement which is inadequate or is a dead letter. A substantial number of failures is from this class of applicants.

The greatest single reason for the large percentage of failures is, we believe, the alleged accounting schools which are springing up with a mushroom growth. These offer correspondence courses and put forward every inducement except solid instruction to attract potential students. Some of these new schools are good, some of both the new and older are bad, and some are so colorless that they are neither good nor bad—very Laodiceans among schools.

Many accountants and others interested in the subject have expressed the opinion that a person who is misled by the flamboyant advertising of some so-called accountancy courses is not deserving of sympathy. The claims of excellence made by some schools are so ridiculous that they should defeat their purpose. It must be remembered, however, that the reading public—the kind of public which is apt to believe the written word whatever it may be—is not given to deep thought or discrimination and many people will accept at its face value any kind of claim to superiority or virtue which is asserted in a plausible manner.

The Journal of Accountancy has declined to publish the advertising of many of these schools. In some cases repeated efforts have been made to induce this magazine to accept advertising of organizations concerning which the institute has serious doubts or no doubts at all. Some of these advertisements in themselves have been quite harmless and have made no claims that might not readily be validated. The Journal of Accountancy,

however, has declined these apparently harmless advertisements if they emanated from organizations engaged in undesirable advertising elsewhere.

For example, we feel that no school can promise results. However excellent the course of instruction, the success or failure of the student depends to a large degree upon his own ability—and a man's ability is quite beyond the range of human control. Therefore if an advertisement is presented to us which states that students taking "our course will not only be able to pass a C. P. A. examination but will surely increase their earning capacity," we will have none of it.

Or if an advertisement by word or impression indicates a leap from a small to a great salary as the result of studying the course advertised it is self-evident that the claim is unlikely of fulfilment in the great majority of cases and the fact of its preposterous character raises grave question as to the value of the course offered.

Testimonials are written by people who should know better and are published broadcast. Men whose names are well-known in professions appear as lecturers, trustees or regents of various accounting schools and the casual reader who has a penchant for accounting or would like to have a knowledge of the subject may be pardoned if he regards seriously what these institutions have to say for themselves.

Such absurd statements are made in support of some of these courses that the first inclination of anyone with the least discernment should be to laugh.

"I recently struck oil on my farm in Oklahoma and as a result I am to-day independently wealthy. I attribute this largely to the fact that when a youth I devoted my evenings for a year to the study of your correspondence course in higher accountancy." Or Cheater's Academy of Accounting might say, "Send for our booklet 'The Royal Road to Wealth.' It will tell you how to leave the humdrum of $2,000 a year and become president of a metropolitan bank." Or "No previous education or experience is required. Take our course and make the rest of the world envious."

These are not exact quotations but are scarcely more absurd than some advertisements that have been published by some so-called schools of accountancy.

Some of the schools which have real merit have been so charmed by the grandiloquence of get-rich-quick organizations that they

have adopted somewhat similar tactics and have thereby greatly depreciated their standing in the eyes of the profession. There seems to be something contagious about a loud noise. We stand at the door of the circus tent and listen to the charm of the barker and straightway are imbued with the idea that if we stand in front of our own doors and bark the crowd will gather and success will come crowding upon us.

In the office of this magazine we have an interesting file of so-called educational pamphlets produced by institutions engaged in the gentle art of angling. If it ever becomes necessary to give horrible illustrations this file will furnish material. There seems to have been nothing in the way of bad taste which has been overlooked—and all in the name of education.

The matter has its humorous side but it has also a serious side. It is almost impossible to prevent false advertising—there are so many degrees of falsity and it is so easy to keep just within the law. If all magazines, newspapers and other vehicles of advertisement would exercise a rigorous censorship of this class of advertising much good could be done, but even then there is always the circular letter—devised by some peculiarly ingenious limb of Satan—which can be sent far and wide and will always bring a certain amount of return.

What is the result? Is it not found in the failure of nearly 87 per cent of candidates in the last examinations? Is it not found also in the great number of men who write to the office of this magazine asking for suggestions as to when and where they can obtain employment and laying claim to efficiency by virtue of having studied such and such a course? Is it not found in the increasing skepticism with which the wary portion of the public is beginning to regard all accounting courses both worthy and unworthy?

There are worthy schools and the JOURNAL is glad to do them honor. They should be supported and they are deserving of success—but they are hindered by the other kind of schools. Public discrimination seems to be the only remedy, and possibly now that money is not so easy to get students of accounting will exercise on their own behalf a little more common sense.

Income-tax Department

EDITED BY STEPHEN G. RUSK

The decision of the United States district court of Connecticut, handed down by District Judge Thomas, December 16, 1920, in the case of *Brewster versus Walsh* is causing such widespread interest that it is thought advisable to publish it in its entirety in THE JOURNAL OF ACCOUNTANCY.

Until this decision is upheld by the United States supreme court taxpayers will be expected to make their returns as heretofore, as if the decision had not been rendered, but it may be advisable to make claims for abatement of the tax on sale of capital assets pending the final adjudication of this matter.

The commissioner of internal revenue has addressed a letter to the collectors under date of February 10, 1921, in which he states that the bureau will continue to collect the tax upon gains and profits realized from the sale of capital assets unless and until the supreme court shall hold that provision of the law unconstitutional.

From the above-mentioned letter it appears that "the same question is involved in the Eldorado and Ryerson cases which were argued in the supreme court some weeks ago." The court has not handed down a decision in these cases.

Treasury decision No. 3119 contains some interesting information regarding estate tax under the revenue act of Sept. 8, 1916, applying to transfers of property in contemplation of death. It comprehends a decision by Circuit Judge Knappen in the United States circuit court of appeals, sixth circuit, in *Schwab, Executor, versus Doyle.*

The regulations relative to amortization allowances have been revised and clarified by the department of internal revenue and they are amended by treasury decision No. 3123.

Some interesting theories are set forth in a decision handed down by Circuit Judge Knappen in the case of the *Nashville, Chattanooga & St. Louis Railway Company versus United States.*

The portion which will be found especially interesting to accountants is that in which the judge states that "the depreciation which may be deducted in determining net income is the decrease in intrinsic value due to wear, tear, decay, obsolescence, etc., of the physical property *suffered during the year* as distinguished from the market value."

This seems to differ from the accepted theory that physical property has a known period of years of usefulness and that its cost, less salvage value at end of its usefulness, is the amount that depreciates, and that this depreciation may be charged against income in equal annual instalments.

It will be seen, however, in this particular case that there had been testimony by "competent witnesses of railway experience" that the "service life

of any normally operated and normally and well maintained railroad is perpetual * * *" Hence there may be no conflict between the ruling in this case and the accepted theory of depreciation.

(*Decision*)

Revenue act of 1916

Increase in value of capital assets when realized by sale or other disposition, by one not a trader or dealer therein, is not income, and hence is not taxable as such.

DISTRICT COURT OF THE UNITED STATES

District of Connecticut

Frederick F. Brewster *vs.* James J. Walsh *Collector of Internal Revenue.*	No. 2133 At Law

THOMAS, DISTRICT JUDGE:

This action arises under the income-tax law of 1916. Plaintiff seeks to recover of the defendant, who is collector of internal revenue for the district of Connecticut, $17,689.13, which amount the plaintiff paid to the government under protest, as an additional income tax assessed against him for the year ending December 31, 1916. The plaintiff further claims that there is also due him the additional sum of $67.66 which the government concedes was an overpayment of normal tax and is rightly due the plaintiff, so that the total amount claimed by the plaintiff is $17,756.79. Trial by jury was waived and the case was tried to the court.

The facts were stipulated. It appears that plaintiff is not now nor was he during the times mentioned herein, a member of any stock exchange, or of any similar organization or association engaged in the business of trading in, buying or selling securities. Neither was he in any way engaged in the business of buying or selling stocks and bonds otherwise than occasionally making purchases of stocks and bonds for investment purposes, and occasionally making sales of such stocks and bonds for the purpose of changing the character of his investments. It further appears that there are three transactions involved in the main points raised in this suit.

The first transaction concerns the bonds of the International Navigation Company. In 1899 the plaintiff acquired certain interest-bearing bonds of that company of the face value of $191,000 in exchange for other securities of the same corporation, and during the year 1916 he sold the same bonds for $191,000. On March 1, 1913, these bonds were quoted in the market at 79½% of their face value, so that on that day the market value of the bonds was $151,845. The tax sought to be collected by the government on this transaction is based upon the difference between the sale price and the market price of the bonds on March 1, 1913, to wit: $39,155, which amount the commissioner taxed as income for the year 1916, and is part of the tax paid under protest which plaintiff seeks to recover in this suit.

The second transaction concerns certain bonds of the International Mercantile Marine Company. In 1903, plaintiff, as a member of an underwriting syndicate, was granted an allotment of mortgage bonds of the face value of $257,000, in return for which he paid the company at that time $231,300 in cash, but the bonds thus allotted were not delivered to the plaintiff until April, 1906 when he received them with nothing by way of interest on the amount of cash he had turned over to the company in 1903. The plaintiff

claims that interest at 6% for three years on $231,300 is properly an element of cost and attributable thereto.

It becomes necessary at this point to digress from a statement of the facts and first dispose of plaintiff's claim for interest on this transaction, in order to determine what the bonds actually cost the plaintiff, as the actual cost must be determined before consideration can be given to the plaintiff's claims respecting the tax the commissioner assessed and which plaintiff paid under protest, pursuant to such assessment. Plaintiff's claim that interest computed from date of payment in 1903 to date of receipt of bonds in 1906, and added to the cash paid for the bonds represents the real cost of the bonds to the plaintiff is untenable.

In *Hays* v. *Gauley Mountain Coal Co.*, 247 U. S. 189, one of the questions there presented was whether the respondent should be allowed to add interest to the amount of cash it had paid in 1902 for certain shares of the capital stock of another mining company which shares it sold in 1911, but the supreme court held that there was "no merit in the contention that interest should be added to the purchase price in order to ascertain its cost," so that I find that the actual cost of these bonds to the plaintiff was $231,300.

From the stipulation it further appears that the plaintiff sold the bonds in 1916 for $276,150, part of them having been sold at 107⅜ and part at 107½. But on March 1, 1913, the market quotation and market value of these bonds was 64 bid and 64½ asked and at such quotation had an actual market value of $164,480. On this transaction the plaintiff failed to make an income tax return as to any profit or gain by him obtained on the sale of these bonds and was later assessed an additional tax of $111,670 on the ground that this was the representative gain shown by the difference between $164,480, the value of said bonds as indicated by the market quotation of March 1, 1913, and $276,150, the price which plaintiff received from the sale of the bonds in 1916. The tax which was assessed on this transaction by the commissioner, and paid under protest, and which is part of the tax here sought to be recovered was levied upon the sum of $111,670, which amount the government claims represents the income received from the sale of these bonds and which amount, as stated above, was the difference between the market value of the bonds on March 1, 1913, and the sum received for them when sold in 1916.

The third transaction relates to a stock dividend declared by the Standard Oil Company of California, in which company the plaintiff owned 1330 shares of its capital stock. In 1916 the plaintiff received 665 shares of stock of said company as a stock dividend declared against a surplus,—18.0754% of which had been earned after March 1, 1913. The government claims that the plaintiff derived $12,019.41 taxable income therefrom, but this claim has been decided adversely to the government in *Eisner* v. *Macomber*, 252 U. S. 180 [¶ 2575], where the identical stock dividend was under consideration, so that the plaintiff, upon that authority, is entitled to recover for the tax assessed and collected in connection with this transaction.

The discussion is therefore narrowed to two transactions,—those pertaining to

The International Navigation Company bonds,

The International Mercantile Marine Company bonds, both of which the plaintiff owned on and before March 1, 1913, and which he sold in 1916, in accordance with the conditions above set forth. So that the sole inquiry here is—whether the difference in the amounts between the value of investment securities on March 1, 1913, and the amounts received for such securities when sold in 1916 is taxable income within the income-tax law of 1916? (39 Stat. c. 463, pp. 756, 757.)

The discussion of this proposition revolves around the sixteenth amend-

ment of the constitution and the legislation passed by the congress after the ratification of the amendment.

The sixteenth amendment to the constitution provides:

> "The congress shall have power to lay and collect taxes *on incomes,* from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration."

The pertinent sections of the statute passed by the congress to carry the amendment into effect provide:

"Sec. 1. (a) That there shall be levied, assessed, collected, and paid annually upon the entire net income received in the preceding calendar year from all sources by every individual, a citizen or resident of the United States, a tax of two per centum upon such income."

> "Sec. 2. (b) That, subject only to such exemptions and deductions as are hereinafter allowed, the net income of a taxable person shall include gains, profits, and income derived from salaries, wages, or compensation for personal service of whatever kind and in whatever form paid, or from professions, vocations, businesses, trade, commerce, or sales, or dealings in property, whether real or personal, growing out of the ownership or use of or interest in real or personal property, also from interest, rent, dividends, securities, or the transactions of any business carried on for gain or profit, or gains or profits and income derived from any source whatever: provided, that the term 'dividends' as used in this title shall be held to mean any distribution made or ordered to be made by a corporation, joint-stock company, association, or insurance company, out of its earnings or profits accrued since March first, nineteen hundred and thirteen, and payable to its shareholders, whether in cash or in stock of the corporation, joint-stock company, association, or insurance company, which stock dividend shall be considered income, to the amount of its cash value."

It is thus apparent that the statute specifically imposes a tax upon net income which "shall include gains, profits, and income derived from . . . sales or dealings in property," and then provides:

> "(c) For the purpose of ascertaining the gain derived from the sale or other disposition of property, real, personal, or mixed, acquired before March first, nineteen hundred and thirteen, the fair market price or value of such property, as of March first nineteen hundred and thirteen, shall be the basis for determining the amount of such gain derived."

It is the contention of the plaintiff that the statute is unconstitutional in so far as it taxes as income the increased value of investments when realized by sale, and that such a tax is a direct tax upon capital or property not authorized by the sixteenth amendment and not a tax upon income. In other words, that such gains do not come within the definition of income as the word is used in the sixteenth amendment.

On the other hand, it is the contention of the government that such gains do constitute income properly taxable under the income-tax law of 1916.

We are therefore brought to a consideration of the scope of the sixteenth amendment, because there is no question but that prior to the adoption of this amendment the congress had no power whatever to tax as income gains arising from the sale of property where the owner thereof was not a dealer or trader in such property so as to justify an excise tax upon his business.

In support of this, reference is made to the decision of the supreme

court in *Pollock* v. *Farmer's Loan & Trust Co.*, 158 U. S. 601. The conclusion stated by Chief Justice Fuller, on page 637, is as follows:

> "Taxes on personal property, or on the income of personal property, are likewise direct taxes," and that "the tax imposed by Sections twenty-seven to thirty-seven, inclusive, of the act of 1894, so far as it falls on the income of real estate and of personal property, being a direct tax within the meaning of the constitution, and, therefore, unconstitutional and void because not apportioned according to representation, all those sections . . . are necessarily invalid."

In *Eisner* v. *Macomber*, supra—Mr. Justice Pitney, speaking of the Pollock case, said on page 205:

> "It was held that taxes upon rents and profits of real estate and upon returns from investments of personal property were in effect direct taxes upon the property from which such income arose, imposed by reason of ownership; and that congress could not impose such taxes without apportioning them among the states according to population, as required by article I, section 2, clause 3, and section 9, clause 4, of the original constitution."

The sixteenth amendment does not extend the taxing power to new subjects. In *Evans* v. *Vore*, 253 U. S. 245, at page 262 [¶ 2738], Mr. Justice Van Devanter in delivering the opinion of the supreme court said:—

> "Thus the genesis and words of the amendment unite in showing that it does not extend the taxing power to new or excepted subjects, but merely removes all occasion otherwise existing for an apportionment among the states of taxes laid on income, whether derived from one source or another."

And again in *Eisner* v. *Macomber*, supra, at page 206, Mr. Justice Pitney, in discussing the scope of the amendment, said:

> "As repeatedly held, this did not extend the taxing power to new subjects, but merely removed the necessity which otherwise might exist for an apportionment among the states of taxes laid on income. *Brushaber* v. *Union Pacific R. R. Co.*, 240 U. S. 1, 17-19; *Stanton* v *Baltic Mining Co.*, 240 U. S. 103, 112 et seq.; *Peck & Co.* v. *Lowe*, 247 U. S. 165, 172-173.
>
> "A proper regard for its genesis, as well as its very clear language, requires also that this amendment shall not be extended by loose construction, so as to repeal or modify, except as applied to income, those provisions of the constitution that require an apportionment according to population for direct taxes upon property, real and personal. This limitation still has an appropriate, and important function, and is not to be overridden by congress or disregarded by the courts.
>
> "In order, therefore, that the clauses cited from article I of the constitution may have proper force and effect, save only as modified by the amendment, and that the latter also may have proper effect, it becomes essential to distinguish between what is and what is not 'income,' as the term is there used; and to apply the distinction, as cases arise, according to truth and substance, without regard to form. Congress can not by any definition it may adopt conclude the matter, since it cannot by legislation alter the constitution, from which alone it derives its power to legislate, and within whose limitations alone that power can be lawfully exercised."

In the case at bar it therefore "becomes essential to distinguish between what is and what is not 'income' as the term is used in the sixteenth amendment . . . and to apply the distinction according to truth and substance without regard to form," in order that article I of the original

constitution, section 2, clause 3, and section 9, clause 4, may have proper force and effect save only as modified by the sixteenth amendment.

The question therefore is simply this:—Is a gain in value realized from the sale of property income?

Insisting with great earnestness, with persuasive argument and the citation of cases alleged to be in support of its argument, the government contends that the answer is—Yes. The plaintiff, with equal forcefulness, contends that the answer is—No.

But the cases relied upon by the government arose under the corporation tax act of 1909, and not under the income tax law. The corporation tax act of 1909, as held by the Supreme Court in *Stratton's Independence* v. *Howbert,* 231 U. S. 399, 414, 416, was not an income tax law, and since gains by sales were specifically included as taxable, the cases decided under that act do not determine the definition of the word "income" within the sixteenth amendment and so are not apposite to the instant case.

Mr. Justice Pitney, in the *Stratton's Independence* case, supra, on page 414, said:—

> "As has been repeatedly remarked, the corporation tax act of 1909 was not intended to be and is not in any proper sense an income tax law. This court had decided in the Pollock case that the income tax law of 1894 amounted in effect to a direct tax upon property, and was invalid because not apportioned according to population as prescribed by the constitution. The act of 1909 avoided this difficulty by imposing not an income tax, but an excise tax upon the conduct of business in a corporate capacity, measuring, however, the amount of tax by the income of the corporation, with certain qualifications prescribed by the act itself. *Flint* v. *Stone-Tracy Co.,* 220 U. S. 107; *McCoach* v. *Minehill Co.,* 228 U. S. 295; *United States* v. *Whitridge* (decided at this term, ante, p. 144)."

And again on page 416 he said:—

> "As to what should be deemed 'income' within the meaning of Sec. 38, it of course need not be such an income as would have been taxable as such, for at that time (the sixteenth amendment not having been as yet ratified), income was not taxable as such by congress without apportionment according to population, and this tax was not so apportioned. Evidently congress adopted the income as the measure of the tax to be imposed with respect to the doing of business in corporate form because it desired that the excise should be imposed, approximately at least, with regard to the amount of benefit presumably derived by such corporation from the current operations of the government. In *Flint* v. *Stone-Tracy Co.,* 220 U. S. 107, 165, it was held that congress in exercising the right to tax a legitimate subject of taxation as a franchise or privilege, was not debarred by the constitution from measuring the taxation by the total income, although derived in part from property, which, considered by itself, was not taxable. It was reasonable that congress should fix upon gross income, without distinction as to source, as a convenient and sufficiently accurate index of the importance of the business transacted."

See also *Anderson* v. *Forty-Two Broadway,* 239 U. S. 69, 72; *Stanton* v. *Baltic Mining Co.,* 240 U. S. 103, 114; *Von Baumbach* v. *Sargent Land Co.,* 242 U. S. 503, 522; *Doyle* v. *Mitchell Bros. Co.,* 247 U. S. 179, 183.

The question before us was passed upon by the supreme court under the income-tax law of 1867 in *Gray* v. *Darlington,* 15 Wallace 63, and this precise question has not been before the supreme court since that decision. There it was decided that under the Law of 1867 a gradual increase in value extending over a period of years could not be taxed as income for

the year in which it was realized by sale. Speaking for the court, Mr. Justice Field on page 65 said:—

> "The question presented is whether the advance in the value of the bonds, during this period of four years, over their cost, realized by their sale, was subject to taxation as gains, profits, or income of the plaintiff for the year in which bonds were sold. The answer which should be given to this question does not, in our judgment, admit of any doubt. The advance in the value of property during a series of years can, in no just sense, be considered the gains, profits, or income of any one particular year of the series, although the entire amount of the advance be at one time turned into money by a sale of the property. The statute looks, with some exceptions, for subjects of taxation only to annual gains, profits, and income."

And further on page 66:

> "The mere fact that property has advanced in value between the date of its acquisition and sale does not authorize the imposition of the tax on the amount of the advance. Mere advance in value in no sense constitutes the gains, profits, or income specified by the statute. It constitutes and can be treated merely as increase of capital."

Respecting this decision, the supreme court in *Lynch* v. *Turrish,* 247 U. S. 221 [¶ 2351], speaking by Mr. Justice McKenna, said on page 230, after discussing *Gray* v. *Darlington*:

"This case has not been since questioned or modified," and meets the government's attempt to distinguish *Gray* v. *Darlington,* on page 230, in the following manner:—

> "The government, however, makes its view depend upon disputable differences between certain words of the two acts. It urges that the Act of 1913 makes the income taxed one 'arising or accruing' in the preceding calendar year, while the Act of 1867 makes the income one 'derived.' Granting that there is a shade of difference between the words, it cannot be granted that congress made that shade a criterion of intention and committed the construction of its legislation to the disputes of purists. Besides, the contention of the government does not reach the principle of *Gray* v. *Darlington,* which is that the gradual advance in the value of property during a series of years in no just sense can be ascribed to a particular year, not therefore as 'arising or accruing,' to meet the challenge of the words, in the last one of the years, as the government contends, and taxable as income for that year or when turned into cash. Indeed, the case decides that such advance in value is not income at all, but merely increase of capital and not subject to a tax as income."

The meaning of the word "incomes" in the sixteenth amendment is no broader than its meaning in the act of 1867. It was adopted in its present form, using only the words "incomes from whatever source derived" with the presumptive knowledge on the part of congress and the several state legislatures, of the meaning attributed thereto by the decisions of the various courts both state and federal.

It has been held repeatedly that gains realized from the sale of capital assets held in trust are not income, but are principal,—exactly as the securities were before they were sold, and that where a tenant for life is entitled to the entire net income of a fund, and the trustee realizes an advance in value by the sale of an investment, the life tenant is not entitled to the gain which is uniformly treated by the courts as an increment to principal and a part of the corpus of the trust.

The following are a few of the leading cases sustaining the doctrine

that the growth or increase of value when realized on the sale of an investment is accretion to capital and not income as between life tenant and remainderman. *Boardman* v. *Mansfield,* 79 Conn. 634; *Carpenter* v. *Perkins,* 83 Conn. 11, 20; *Parker* v. *Johnson,* 37 N. J. Eq. 366, 368; *Outcault* v. *Appleby,* 36 N. J. Eq. 74, 78; *Matter of Gerry,* 103 N. Y. 445; *Thayer* v. *Burr,* 201 N. Y. 155, 157, 158; *Graham's Estate,* 198 Pa. St. 216; *Neel's Estate* (No. 2) 207 Pa. St. 446; *Lauman* v. *Foster,* 157 Iowa 275; *Slocum* v. *Ames,* 19 R. I. 401; *Jordan* v. *Jordan,* 192 Mass. 337; *Mercer* v. *Buchanan,* 132 Fed. 501, 508.

These decisions had at the time of the adoption of the sixteenth amendment, established a definite meaning of the word "income" for the purpose of statutory and constitutional construction. It is difficult to see how the word "income" can have any different meaning when applied to the proceeds of an investment when held by a trustee, than when held by an individual, as the income-tax law specifically refers to funds held in trust. (Sec. 2 (b).)

In order to show the conclusions reached by the courts it will suffice to quote from only one of the cases to which reference is made supra. In *Parker* v. *Johnson,* 37 N. J. Eq. 366, the court said:

> "The profit is not income. It was made by the trustee in the process of converting the investment, and, like a premium realized on the sale of government bonds in which the funds might be invested, it belongs to the fund. The trustee in this case is to keep the fund invested, and the tenant for life is entitled to the interest. It is clearly the duty of the trustee to apply the profits on one invesment to making up the losses on others."

So it seems that income from investments consists,—in the case of bonds, of interest; in the case of stocks, of dividends. There is no income from the sale of investments.

The conclusion seems imperative that the word "income" has a well-defined meaning, not only in common speech but also under judicial construction and this meaning does not include the increase in value of capital assets when realized upon a sale.

The following extract from the opinion of Mr. Justice Pitney in the Macomber case, supra, at page 206, is instructive:

> "For the present purpose we require only a clear definition of the term 'income' as used in common speech, in order to determine its meaning in the amendment."

It seems to me apparent that the supreme court, in *Towne* v. *Eisner,* 245 U. S. 418, 426 [p. 2313], and in *Eisner* v. *Macomber,* supra, followed the doctrine enunciated in *Gibbons* v. *Mahon,* 136 U. S. 549, where it was held that a stock dividend is an accretion to capital and not income as between a life tenant and the remainderman and therefore held in the Towne case that a stock dividend was not income within the meaning of the income-tax law of 1913 and in the Macomber case that a stock dividend was not income within the meaning of the sixteenth amendment. As already stated, it is difficult to see why any different rule should be applied to the proceeds of an investment—purely a capital investment—when held by a trustee than when held by an individual.

Two pertinent points have been definitely established by the supreme court in *Eisner* v. *Macomber,* supra, page 214:

> First:—"Enrichment through increase in value of capital investment is not income in any proper meaning of the term."

and

> Second:—If it requires conversion of capital in order to pay the

tax, it must follow that the tax is on capital increase and not on income, for on page 213, the court said:—

> "Yet without selling, the shareholder, unless possessed of other resources, has not the wherewithal to pay an income tax upon the dividend stock. Nothing could more clearly show that to tax a stock dividend is to tax a capital increase, and not income, than this demonstration that in the nature of things it requires conversion of capital in order to pay the tax."

Had the plaintiff possessed no resources other than the bonds which he sold,—prior to the sale his capital would have been their then entire value. The increase since March 1, 1913, was capital increase. To collect the tax on this increase in value because the capital was converted into cash must of necessity diminish his capital to that extent. Before the sale all the plaintiff possessed was capital without any part of it constituting income. The sale of capital results only in changing its form and like the mere issue of a stock dividend, makes the recipient no richer than before. *Gibbons* v. *Mahon,* supra; *Towne* v. *Eisner,* supra; *Eisner* v. *Macomber,* supra.

The exact question presented in this case has not been before the supreme court since its decision in *Gray* v. *Darlington,* supra, nor did it arise in *Eisner* v. *Macomber,* supra. Notwithstanding certain passages in the opinion of the court in the Macomber case stating that when dividend stock is sold at a profit, the profit is taxable like other income,—which I consider, in view of all that has been written by the supreme court in a long line of income tax decisions, must mean that the profit derived from such transactions, if it is income, applies in the case of a trader and not in the case of an individual who merely changes his investments.

Therefore, under the authority of *Gray* v. *Darlington,* which is approved in *Lynch* v. *Turrish,* supra, I feel constrained to hold that the appreciation in value of the plaintiff's bonds, even though realized by sale, is not income taxable as such, and in reaching this conclusion I find support for it in the Macomber case where Mr. Justice Pitney says:

> "Enrichment through increase in value of capital investment is not income in any proper meaning of the term."

It follows that the income-tax law of 1916, in so far as it attempts to tax such increase, is in conflict with the apportionment requirements of the first article of the constitution, being a direct tax and not apportioned among the several states according to population.

Counsel for plaintiff contended that the act should be so construed as to limit the tax to the actual increase from the dates of acquisition, although the value of such bonds was less on March 1, 1913, than when acquired prior thereto, in the event that the gain in value of the bonds when sold was taxable at all. In view of the decision that such increases are not income it becomes unnecessary to discuss the point.

The conclusion herein expressed has been reached only after a very careful consideration of all the respective claims presented by able counsel in exhaustive and persuasive briefs and with full appreciation of the admonition given by the supreme court in *Nicol* v. *Ames,* 173 U. S. 509, at page 514. This court fully appreciates that

> "It is always an exceedingly grave and delicate duty to decide upon the constitutionality of an act of the congress of the United States."

and that

> "the duty imposed demands in its discharge the utmost deliberation and care and invokes the deepest sense of responsibility"—

as was said by Chief Justice Fuller in the opening paragraph of the opinion in *Pollock* v. *Farmers' Loan & Trust Co.,* 158 U. S. 601, at page 617.

In the discharge of that duty, as I see it, it follows that the word "incomes" in the sixteenth amendment should not and cannot be so construed as to include property other than income even if such property is described as income by an act of congress, as such a construction permits the congress to nullify the provisions of the second section of article I of the constitution, that direct taxes shall be apportioned.

Let judgment be entered for the plaintiff to recover of the defendant $17,756.79, together with interest on the same from July 19, 1918, together with costs of suit.

Ordered accordingly.

(T. D. 3115, January 12, 1921)

Treasury certificates of indebtedness

Instructions relative to acceptance of treasury certificates of indebtedness for income and profits taxes, supplementing articles 1731 and 1732, regulations No. 45 (revised), and superseding T. D. 2973.

1. Collectors of internal revenue are authorized and directed to receive at par United States treasury certificates of indebtedness, series TM-1921, dated March 15, 1920, series TM 2-1921, dated July 15, 1920, series TM 3-1921, dated September 15, 1920, and series TM 4-1921, dated October 15, 1920, all maturing March 15, 1921, in payment of income and profits taxes payable on March 15, 1921. Collectors are authorized and directed to receive at par treasury certificates of indebtedness of series TJ-1921, dated June 15, 1920, and series TJ 2-1921, dated December 15, 1920, both maturing June 15, 1921, in payment of income and profits taxes payable on June 15, 1921; treasury certificates of indebtedness of series TS-1921, dated September 15, 1920, maturing September 15, 1921, in payment of income and profits taxes payable on September 15, 1921, and treasury certificates of indebtedness of series TD-1921, dated December 15, 1920, maturing December 15, 1921, in payment of income and profits taxes, payable on December 15, 1921. Collectors are further authorized and directed to receive at par, in payment of income and profits taxes payable at the maturity of the certificates, respectively, treasury certificates of indebtedness of any other series which may be issued maturing on March 15, June 15, September 15, or December 15, 1921, respectively, and expressed to be acceptable in payment of income and profits taxes. Collectors are not authorized hereunder to receive in payment of income or profits taxes any treasury certificates of indebtedness not expressed to be acceptable in payment of income and profits taxes, nor any treasury certificates maturing on a date other than the date on which the taxes are payable. Collectors are authorized to receive treasury certificates of indebtedness which are acceptable as herein provided in payment of income and profits taxes, in advance of the respective dates on which the certificates mature. Treasury certificates acceptable in payment of income and profits taxes have one or more interest coupons attached, including as to each series a coupon payable at the maturity of the certificates, but all interest coupons must in each case be detached by the taxpayer before presentation to the collector, and collected in ordinary course when due. The amount, at, par, of the treasury certificates of indebtedness presented by any taxpayer in payment of income and profits taxes must not exceed the amount of the taxes to be paid by him, and collectors shall in no case pay interest on the certificates or accept them for an amount other or greater than their face value.

2. Deposits of treasury certificates of indebtedness received in payment of income and profits taxes must be made by collectors, unless otherwise specifically instructed by the secretary of the treasury, with the federal reserve bank of the district in which the collector's head office is located, or in case such head office is located in the same city with a branch federal reserve bank, with such branch federal reserve bank. Specific instruc-

tions may be given to collectors by the secretary of the treasury in certain instances for the deposit of the certificates with federal reserve banks of other districts and branch federal reserve banks. The term "federal reserve bank," where it appears herein, unless otherwise indicated by the context, includes branch federal reserve banks. Treasury certificates accepted by the collector prior to the dates when the certificates respectively mature should be forwarded by the collector to the federal reserve bank, to be held for account of the collector until the date of maturity and for deposit on such date.

3. Collectors of internal revenue are not authorized, unless express instructions otherwise are given by the secretary of the treasury, to receive in payment of income or profits taxes interim receipts issued by federal reserve banks in lieu of definite certificates of the series herein described.

4. Certificates of indebtedness should in all cases be indelibly stamped on the face thereof as follows by the collector, and when so stamped should be delivered to the federal reserve bank in person if the collector is located in the same city, and in all other cases forwarded by registered mail uninsured:

....., 192...

This certificate has been accepted in payment of income and profits taxes, and will not be redeemed by the United States except for credit of the undersigned.

.....

Collector of Internal Revenue

for the ..... District of .....

5. Collectors should make in tabular form a schedule in duplicate of the certificates of indebtedness to be forwarded to the federal reserve bank, showing the serial number of each certificate, the date of issue and maturity, with serial designation, and face value. Certificates of indebtedness accepted prior to the date of maturity must be scheduled separately. At the bottom of each schedule there should be written or stamped "Income and profits taxes $.....," which amount must agree with the total shown on the schedule. One copy of this schedule must accompany certificates sent to the federal reserve bank, and the other be retained by the collector. The income and profits tax deposits resulting from the deposits of such certificates must in all cases be shown on the face of the certificate of deposit (national bank form 15) separate and distinct from the item of miscellaneous internal-revenue collections (formerly called ordinary). Until certificates of deposit are received from the federal reserve banks, the amounts represented by the certificates of indebtedness forwarded for deposit must be carried by collectors as cash on hand, and not credited as collections, as the dates of certificates of deposit determine the dates of collections.

6. For the purpose of saving taxpayers the expense of transmitting such certificates as are held in federal reserve cities or federal reserve branch bank cities to the office of the collector in whose district the taxes are payable, taxpayers desiring to pay income and profits taxes by such treasury certificates of indebtedness acceptable in payment of taxes should communicate with the collector of the district in which the taxes are payable and request from him authority to deposit such certificates with the federal reserve bank in the city in which the certificates are held. Collectors are authorized to permit deposits of treasury certificates of indebtedness in any federal reserve bank with the distinct understanding that the federal reserve bank is to issue a certificate of deposit in the collector's name covering the amount of the certificates of indebtedness at par and to state on the face of the certificate of deposit that the amount represented

thereby is in payment of income and profits taxes. The federal reserve bank should forward the original certificate of deposit to the treasurer of the United States with its daily transcript, and transmit to the collector the duplicate and triplicate, accompanied by a statement giving the name of the taxpayer for whom the payment is made, in order that the collector may make the necessary record and forward the duplicate to the office of the commissioner of internal revenue.

7. This treasury decision amends and supplements the provisions of article 1731 and 1732 of regulations No. 45 (revised), and supersedes T. D. 2973.

(T. D. 3119, January 17, 1921)

Estate tax—Act of September 8, 1916—Decision of court

1. ESTATE TAX—TRANSFER IN CONTEMPLATION OF DEATH—RETROACTIVE OPERATION OF ACT.

The act of September 8, 1916, title II, applies to all transfers in contemplation of death, whether made before or after the passage of the act, provided the transferrer's death occurred after the act took effect.

2. SAME—ACT OF SEPTEMBER 8, 1916—CONSTITUTIONALITY.

The act of September 8, 1916, title II, construed as applying to transfers made in contemplation of death before its passage, where the transferrer died after the act took effect, is not unconstitutional.

3. SAME—"IN CONTEMPLATION OF DEATH" DEFINED.

By the term "in contemplation of death," as used in section 202 of the act of September 8, 1916, and applied to a gift inter vivos, is not meant on the one hand the general expectancy of death which is entertained by all persons, nor, on the other, is the meaning of the term necessarily limited to an expectancy of immediate death or a dying condition. Nor is it necessary, in order to constitute a transfer in contemplation of death, that the conveyance or transfer be made while death is imminent, or immediately impending by reason of ill health, disease, injury or like physical conditions. But a transfer may be said to be made in contemplation of death if the expectancy or anticipation of death in either the immediate or reasonably near future is the moving cause of the transfer.

4. ESTATE TAX—TRANSFER IN CONTEMPLATION OF DEATH—EVIDENCE.

The decedent on April 22, 1915, made a deed absolute in form conveying personal property worth about $1,000,000 in trust with no reservations in her favor. She died September 16, 1916, of apoplexy, primarily resulting from hardening of the arteries. She was a childless widow and had lived for many years in the family of a sister whose husband, and ultimately whose children, were the beneficiaries of the deed of trust. On May 26, 1915, the decedent made her will and in it referred to the disposition of her estate and to the wills made at the same time by her sister and brother-in-law. *Held,* that it was clear, in the light of the evidence presented, that a question of fact was presented for the jury's determination.

5. SAME—TRANSFER IN CONTEMPLATION OF DEATH—PRESUMPTION.

It was not error to charge that, in determining the issue of fact whether the transfer was made in contemplation of death, there might be taken into account the presumption afforded by the prima facie clause of section 202 (*b*) of the act, which provides that "Any transfer of a material part of his property in the nature of a final disposition or distribution thereof, made by the decedent within two years prior to his death without such a consideration (namely, a fair consideration in money or money's worth) shall, unless shown to the contrary, be deemed to have been made in contemplation of death * * * ."

6. Same—Transfer in contemplation of death—Conclusion of witness.

It is incompetent for a witness to state a fact which is for the ultimate conclusion of the jury; in the present instance, whether a testatrix had any expectancy that she was in danger of passing away in the near future.

7. Evidence—Hearsay.

Testimony of a witness that he understood that decedent, her sister, and the latter's husband made their wills together so as not to excite decedent, was properly excluded; witness plainly having no first-hand knowledge of the matter.

8. Same—Objection to competency—Time.

Where no exception was taken to overruling of objection to testimony on ground that it was immaterial, and the witness then testified without objection, a subsequent objection, on the question being substantially repeated to the same witness, but without statement of the grounds of asserted incompetency, and without motion to strike out the testimony already given, came too late.

The appended decision, dated December 10, 1920, of the United States circuit court of appeals, sixth circuit, in the case of *Victor E. Shwab, executor, v. Doyle, collector,* is published for the information of internal revenue officers and others concerned.

United States circuit court of appeals, sixth circuit

Victor E. Shwab, executor ,plaintiff in error, v. *Emanuel J. Doyle, collector internal revenue, defendant in error*

Error to the district court of the United States for the western district of Michigan

Submitted June 11, 1920. Decided December 10, 1920

Before Knappen, Denison, and Donahue, circuit judges

Knappen, circuit judge: Suit by plaintiff in error to recover an estate tax paid under protest.

On April 22, 1915, decedent made to the Detroit Trust Co. a deed absolute in form, conveying personal property worth about $1,000,000 in trust, for the payment of both interest and principal to certain beneficiaries, with no reservation in favor of the grantor. The conveyance took immediate effect, and was accompanied by delivery of the property conveyed. It was purely voluntary and without momentary consideration. Decedent died September 16, 1916, possessed of a remaining estate of about $800,000, upon which a tax was assessed and paid upon return by the executor under title II of the revenue act of September 8, 1916 (39 Stat., ch. 463; U. S. Comp. Stat., 1916, sec. 6336½), which took effect seven days before decedent's death, viz, September 9, 1916. That tax is not involved here, nor is its validity questioned. The tax here in question was assessed under section 202 of the same act, as upon a transfer made in contemplation of death. Plaintiff contended below and contends here (1) that the act was not intended to reach absolute conveyances in contemplation of death made before the passage of the act; (2) that if so intended it is unconstitutional; (3) that there was no substantial evidence that the transfer was "in contemplation of death" within the meaning of the statute. The trial court denied plaintiff's motion for a direct verdict, held the statute valid and applicable to the trust deed, if made in contemplation of death, and submitted to the jury the question whether it was so made. There were verdict and judgment for defendant.

1. Was the act intended to apply to transfers made before its passage? Section 202 includes in the taxable value of a decedent's estate (*a*) prop-

erty held by the decedent at the time of his death and subject thereafter to the payment of debts and expenses of administration, and to distribution as part of his estate; (*b*) property "of which decedent has at any time made a transfer or with respect to which he has created a trust, in contemplation of or intended to take effect in possession or enjoyment at or after his death, except in case of a bona fide sale for a fair consideration in money or money's worth;" (*c*) property held jointly or as tenants in the entirety by decedent and any other person.

It will be observed that the transfers mentioned in subdivision (*b*) are of two classes—those made "in contemplation of death" and those "intended to take effect in possession or enjoyment at or after" death. We are concerned with the first only of these classifications.

In our opinion the statute evidences an intent on the part of congress that the tax should apply to all transfers in contemplation of death, whether made before or after the passage of the act, provided the transferrer's death occur after the act took effect. This intent is, we think, evidenced by a variety of considerations.

(*a*) Section 201 imposes a tax upon the transfer of the net estate of "*every* person dying after the passage of this act." In section 202 the taxable estate of the decedent embraces all transfers of the two classes already mentioned which the decedent has *"at any time made."* The remaining paragraph of section 202 (*b*) not already set out declares that *"any transfer* of a material part of his property in the nature of a final disposition or distribution thereof made by the decedent within *two years prior* to his death without such a consideration (a fair consideration in money or money's worth) shall, unless shown to the contrary, be deemed to have been made in contemplation of death within the meaning of this title." The italicized words in each of the foregoing quotations indicate, on their face, an all-embracing intent, and are thus prima facie opposed to a limitation to transfers made after the passage of the act.

(*b*) The evident theory of the statute is that transfers intended to take effect after the death of the grantor, as well as those made in contemplation of death, are equally testamentary in character.—*Rosenthal v. People* (211 Ill., 306, 309); *Keeney* v. *New York* (222 U. S., 525, 536). Such classification is within the power of congress. The theory of taxation on account of transfers testamentary in character is that death is the generating source of the tax.—*Knowlton v. Moore* (178 U. S., 41, 56); *Cahen v. Brewster* (203 U. S., 543, 550). A transfer is accordingly taxed only at the death of the transferrer, no matter how long the transfer may precede death. Congress has accordingly included the two classes of transfers in one and the same section and subjected them, so far as terms go, to precisely the same treatment. In our opinion a transfer intended to take effect in possession or enjoyment after the grantor's death would under this statute be taxable, although made before the passage of the act.—*Wright v. Blakeslee* (101 U. S., 174, 176). The natural inference would be, in the absence of substantial evidence to the country, that the same result was intended as to transfers made in contemplation of death.

(*c*) While the interests derived by a grantee under an absolute and immediately effective conveyance in contemplation of death are vested, the same is true of any irrevocable conveyance which takes effect in possession or enjoyment only upon the death of the grantor, although in the latter case such vesting is merely in expectancy. If congress had power, as we think it had, to tax both classes of conveyances, even if made before the passage of the act, no good reason suggests itself why it should desire to discriminate between the two classes of transfers.

It is not to our minds unnatural, nor is it necessarily unjust, that congress should intend that one taking a conveyance of a testamentary character, entirely without consideration, should do so at the risk of having the

transfer taxed, directly or indirectly, as would be the case were the transfer by will or by conveyance taking effect at or after the grantor's death. Under this statute, however, the remaining estate of the decedent, both in case of a transfer intended to take effect at the grantor's death and in the case of a transfer made in contemplation of death (as well as in the case of transfers by will) is made primarily liable for the tax, and it is only when the estate proves insufficient for the purpose that resort may be had, under section 209, to the personal responsibility of the transferee or to the property transferred, and even then a right of action over is given to the transferee. We find in the language of section 209—"If a decedent makes a transfer of or creates a trust with respect to, etc."—nothing which we think inconsistent with the construction of the act which we find disclosed by section 202 and by the other considerations to which we have called attention. Section 209 pertains merely to the remedy for the collection of the tax.

(*d*) Congress has not been averse to imposing taxation for a period preceding the passage of the taxing act. This has been ordinary practice with respect to income taxes. Indeed, the revenue act of September 8, 1916, here in question, provided for taxation of income accruing during the entire year beginning January 1, 1916. While in that case less than a year had elapsed, the distinction from the case presented here is one of degree and not of principle. The present income tax act, however, passed February 24, 1919 (40 Stat., ch. 18), imposed taxation for the year 1918, then wholly passed.

It is true that if the tax before us is retroactive it might, at least theoretically, affect conveyance made many years before a grantor's death, but this consideration is hardly practical. Congress would, we think, scarcely be impressed with a practical likelihood that a transfer made many years before a grantor's death (say 25 years, to use plaintiff's suggestion) would be judicially found to be made in contemplation of death under the legal definition applicable thereto, and without the aid of the two years' prima facie provision. The considerations which we have enumerated not only outweigh in our opinion those opposed thereto, but we think clearly, positively, and imperatively demand that the act be construed as intended to apply to transfers of the class here in question, although made before the act was passed, provided the death of the transferrer occurs thereafter.

2. Is the statute unconstitutional as applied to the trust deed? In our opinion the act, if so construed, is not void as denying due process of law or as violating the fifth amendment to the constitution.—*Billings v. United States* (232 U. S., 261, 282-3); *Brushaber v. Union Pacific R. R. Co.* (240 U. S., 1, 23, 24). Nor do we think the tax is to be classified as a direct tax, and thus void as within the constitutional requirement of apportionment. It is clearly an excise or duty tax.—*Scholey v. Rew.* (23 Wall., 331); *Knowlton v. Moore,* supra (at p. 78); *Flint v. Stone-Tracy Co.* (220 U. S., 107, 159); *Keeney v. New York,* supra (at p. 537). Without enumerating every objection suggested against the validity of the tax, we think it enough to say that in our opinion its validity must depend upon whether or not it can be said to interfere with vested rights. As regards this consideration, we may set to one side the interests of the beneficiaries under the trust deed. Not only are they not complaining, but no tax has been assessed against their interests. No interest, invested or uninvested, on their part is proposed to be or can be taken under the statute and the existing facts, for not only is decedent's remaining estate able to pay the tax, but it has already paid it. Decedent's estate alone, and those interested therein under her will, must bear the burden. It is settled law that one attacking a statute as unconstitutional must show that the alleged unconstitutional feature injures him.—*Southern Ry. v. King* (217 U. S., 524, 534); *Plymouth Coal Co. v. Pennsylvania* (232 U. S., 531, 544-5).

As to plaintiff's interest: assuming that he is entitled to raise the ques-

tion, we think the statute not invalid because applying to transfers made before its passage. It does not affect transfers made after the transferrer's death. Being within the all-embracing power of Congress over the subject of excise and transfer taxation, it is not necessarily unconstitutional merely because retroactive.—Cooley on *Taxation* (3d ed., pp. 492-494); *Billings v. United States* (232 U. S., 261, 282), where the validity of the 1909 tonnage act on the use of foreign-built yachts was assailed as retroactive; *Brushaber v. Union Pacific R. R. Co.* (240 U. S., 1, 20), which involved the validity of the income tax of 1913 as against a similar objection; *Stockdale v. Insurance Co.* (20 Wall., 323, 331, et seq.), which involved the income tax law of 1867. True, none of the cases referred to is on all fours with the instant case, but we think the principles they announce are decisive. Decedent's death being the generating source of the taxation and the statute validly classifying it as of testamentary character, it logically follows, in our opinion, that it is valid to impose at decedent's death a tax on the testamentary transfer occurring before the passage of the act, regardless of the fact that title had already passed to the transferees. In *Cahen v. Brewster*, supra (pp. 549 et seq.), a statute imposing an inheritance tax was sustained as to legatees of decedents dying prior to its enactment, but whose estates were still undistributed. This case is not without a certain amount of analogy; nor is there any controlling difference in principle between the assessment of a tax upon a previous testamentary transfer and the imposition of an income tax after the period covered thereby has wholly or in large part passed; nor—considering that death is the generating source of estate taxation—between an estate tax upon a transfer created by will and one upon a transfer created by testamentary deed, merely because in the one case a right of revocation existed while in the other it is absent, or because one took effect before and the other after the death of the transferrer.

This conclusion makes it unnecessary to consider the correctness of the construction put upon the act by the trial judge, which distinguished between the "net estate" burdened by the tax, viz., that which remained at decedent's death, and the net estate resulting from a gross estate which includes, for purposes of measurement, property previously transferred.

Plaintiff urges that in including in the revenue act of 1918 (40 Stat., 1057, 1097), the words "whether such transfer is made or occurred before or after the passage of this act," congress indicated an understanding that the act here in question was not intended to so provide. We think it, however, the more reasonable inference that the amendment of 1918 was made to elucidate without changing of the law, and put at rest any controversy on the subject.—*Johnson* v. *So. Pacific R. R. Co.* 196 U. S., 1, 20, 21); *United States* v. *Coulby* [D. C.] (251 Fed., 982, 985-6; affirmed, C. C. A., 6 (258 Fed., 27).

3. *Meaning of the phrase "in contemplation of death."*—Plaintiff asked an instruction that "the words 'in contemplation of death' do not refer to that general expectation of death which every mortal entertains, but rather the apprehension which arises from some existing condition of body or some impending peril." This request was refused, and the jury instructed that "by the term 'in contemplation of death' is not meant on the one hand the general expectancy of death which is entertained by all persons, for every person knows that he must die * * *. On the other hand, the meaning of the term is not necessarily limited to an expectancy of immediate death or a dying condition * * *. The term 'in contemplation of death' involves something between these two extremes. Nor is it necessary, in order to constitute a transfer in contemplation of death, that the conveyance or transfer be made while death is imminent, while it is immediately impending by reason of bodily conditions—ill-health, disease, or injury, or something of that kind. But a transfer may be said to be made in contemplation of death if the expectation or anticipation of death in either the

immediate or reasonably distant future is the moving cause of the transfer."

It may be conceded that plaintiff's requested instruction would have been proper as applied to a gift claimed to have been made causa mortis—when the grantor was in a dying condition. But the instant case presented no such issue or claim. The transfer in question was an absolute gift inter vivos, claimed by the government to have been testamentary in character. On principle, and without present reference to authority, the ultimate question concerns the motive which actuated the grantor; that is to say, whether or not a specific anticipation or expectation of her own health, immediate or near at hand (as distinguished from the general and universal expectation of death some time), was the immediately moving cause of the transfer. Both the element of "existing condition of body," as distinguished from the grantor's mental state on that subject, and the term "impending," are inconsistent with the prima facie provision of section 202 (*b*), which we have set out in paragraph (*a*) of the first division of this opinion.

Plaintiff's contention also overlooks the contribution which may be made to the grantor's state of mind and motive by a realization of the fact that she had already lived many years beyond the scriptural limit. Of course, the grantor's bodily health especially as known to her, was an important factor in ascertaining her state of mind and determining the ultimate question whether she was directly actuated by a "contemplation of death." Upon principle we think the court's instruction correct.

Nor do we think the trial court's definition in conflict with any settled and controlling rule of construction. No federal decision directly in point is cited. Plaintiff relies on the decisions of the courts of New York, Illinois, Wisconsin, and California, construing similar statutes antedating the federal act (that of New York—1892—being the first in point of time), not only as authority for the construction for which he contends, but as raising a presumption that congress adopted the construction put by the highest courts of those States upon their statutes.

In our opinion, the decisions relied on by plaintiff do not completely or uniformly support his definition. The New York decisions are not convincing. In the matter of Seaman (147 N. Y., 69) [1895], the expression "in contemplation of death" was said in effect to be confined to conveyances causa mortis. While this statement was obiter, it seems to have been reflected in some at least of the subsequent decisions of the New York courts; and while the proposition above cited was definitely rejected in *In re Dee's estate* (148 N. Y. Supp., 423), affirmed 1914 (210 N. Y., 625), and conveyances inter vivos held to be embraced within the phrase "in contemplation of death," it would not be natural that the decisions meanwhile construing that phrase should be more or less influenced by such earlier classifications. For instance, in the matter of Spaulding's estate (63 N. Y. Supp., 694), affirmed (163 N. Y., 607), the decision was substantially rested on the ground of lack of evidence that the conveyance was made when the grantor was in extremis or that it was made to avoid the estate tax. In the matter of Mahlstedt's estate (73 N. Y. Supp., 818, 820)—decided before the statute had been definitely held to apply to gifts inter vivos—the essential question was said to be whether the transfer "was made in the then belief that he was not going to get well; that it was made in contemplation of his impending death and for the purpose of defrauding the State of the transfer tax." Manifestly, the question of intent to evade has no pertinency to the case of a purely testamentary conveyance into vivos.—*Rosenthal v. People* (211 Ill., App. 308, 309). As showing the lack of the settled construction in New York contended for by plaintiffs, it is significant that in the Crary case (64 N. Y. Supp., 566, 568) the statute was defined as said to be "intended to reach absolute transfer of property when made under a certain condition, viz, when the transferrer was contemplating death; that

is, the thought of death has taken so firm a hold on his mind as to control and dictate his actions regarding his property, and the business is transacted while contemplating death, and considering what conditions would arise or exist in the event of death without making the transfer or, to be more specific, the contemplation of death is the sole motive and cause of the transfer." The state of mind of the grantor was, at least impliedly, recognized as the ultimate test (p. 569).

The Illinois decisions fall short of supporting plaintiff's definition. In *Rosenthal v. People* (211 Ill., 306, 309) the only definition of "in contemplation of death" is this: "A gift is made in contemplation of an event when it is made in expectation of that event and having it in view, and a gift made when the donor is looking forward to his death as impending, and in view of that event, is within the language of the statute." The second half of the quotation presumably relates to the application to the statute of the facts of the case.—*Merrifield v. People* 212 Ill., 400) contains no definition of the term we are considering. The same is true of *People v. Kelly* (218 Ill., 509, 515). There a question of fact was alone involved, the court finding no evidence tending to show that the transferrer "thought he was about to die at the time he executed said trust deed, *or that he made said trust deed in contemplation of his death.*" In in re estate of Benton (234 Ill., 366, 370), the definition given in *Rosenthal v. People* was cited with approval. The court, after citing both the Rosenthal and Kelly cases, said: "Under the law as established by the foregoing decisions the question at issue is whether the gift was made in expectation of death, and a purpose on the part of the donor to place his estate, or some part thereof, in the hands of those whom he desired to enjoy it after his death." It is true that in *People v. Carpenter* (264 Ill., 400, 408), the court, citing the Rosenthal and Benton cases, remarked: "Of course, the words 'in contemplation of death' as used in these statutes do not mean that general expectation of all rational mortals that they will die some time, but it means an apprehension of death which arises from some existing infirmity or impending peril." But not only do the Rosenthal and Benton cases fall short of fully sustaining that definition as an exclusive one, but the language we have quoted was purely obiter, as no claim was made that the trust agreements were executed "in view of death," and the decision in the trial court, as expressly stated in the opinion of the supreme court, did not rest on that ground (p. 408).

Nor do the Wisconsin cases support plaintiff's contention. In *State v. Pabst* (139 Wis., 561, 590), it is said that the words "in contemplation of death" are "evidently intended to refer to an expectation of death which arises from such a *bodily or mental* condition as prompts persons to dispose of their property and bestow it upon those whom they regard as entitled to their bounty;" and again, "A transfer valid as a gift inter vivos, if made under circumstances which impress it with the distinguishing characteristics of being prompted by an apprehension of impending death, occasioned by a *bodily* or *mental* state which has a basis for the apprehension that death is imminent, would be a transfer made in contemplation of death within the meaning of the law." True, in *State v. Thompson* (154 Wis., 320, 328-9), the court cited with approval the holding in the Pabst case, which we have already quoted; the quotation which we give in the margin from *In re Baker's estate*[1] (82 N. Y. Supp., 390-2 (affirmed 178 N. Y., 575), also decided before the New York statute had been authoritatively held to include gifts inter vivos), and the holding in *People v. Burkhalter* (247 Ill., 600, 604), that "contemplation of death must be the impelling motive for making the gift in order that it be subject to an inheritance tax." The

[1] This court has held that the words "in contemplation of death" do not refer to that general expectation which every mortal entertains, but rather the apprehension which arises from some existing condition of body or some impending peril.

definitions given in these various citations are not uniform or entirely consistent. Moreover, the decision of the Thompson case seems to have turned at the last on the question whether the grantor's age "was so great when the gifts in question were made as to establish the fact that they were made in contemplation of death."

The California decisions are not especially pertinent, for the reason that the California statute contains a definition of the term "in contemplation of death."—*Estate of Reynolds* (169 Calif., 600); *Kelly v. Woolsey* (177 Calif., 325); *Abstract Co. v. State* (178 Calif., 691, 694); *Spreckles v. California* (30 Calif. App., 363, 369); *McDougale v. Wulzen* (34 Calif. App., 21); *In re Minor's estate* (180 Pac., 813). It is enough to say of these decisions (*a*) that they are not authority for the definition contended for by plaintiff; (*b*) that they specifically reject the New York definition, based upon the confusion between gifts causa mortis and conveyances inter vivos.—*Estate of Reynolds* supra (p. 603).

Criticism is made upon the expression "reasonably distant future," contained in the extract from the charge which we print in the margin.[2] It is, we think, not open to question that had the word "close" instead of "distant" been used the instruction would have been proper, so far as concerns imminency. That the trial court regarded the words as equivalent, or intended to use the words "reasonably close," appears from his opinion announced immediately before instructing the jury, in which the words "reasonably close" were used. While "close" and "distant" are frequently directly opposed to each other, yet when used as here they are not necessarily opposed. A time which is only reasonably distant is reasonably close. There was nothing in the exception to the definition as made which would call the trial court's attention to a proposition that the word "close" should have been used instead of "distant," especially since there had been also an exception given to the court's announced intention to charge a "reasonably close" future.—*Norfolk & Western Ry. Co. v. Earnest* (229 U. S., 114, 119-20). Had the court's attention been called to the use of the word "distant," instead of "close" doubtless any question of difference between the two would readily have been obviated.

4. *The sufficiency of the evidence.*—The motion to direct verdict was properly overruled if there was substantial testimony tending to support a conclusion that the conveyence was made in contemplation of death, even though the testimony would have supported a contrary conclusion, as it doubtless would. We can not weigh the testimony. In our opinion there was substantial testimony, and as it must be considered in its aspect most favorable to defendant, we so state it, omitting for the most part specific mention of the considerations relied on by plaintiff where not as matter of law decisive.

Decedent was about 77 years of age when the trust deed was made. She had rheumatism of the knee and was subject to frequent attacks of constipation, a condition said to have a tendency in elderly people to autointoxication. She had arteriosclerosis, which according to the medical testimony is usually fatal, and she died of apoplexy, a medical attendant testifying that in his judgment the apoplexy and death primarily resulted from hardening of the arteries, secondarily from age. She was a childless widow and had lived most of the time for many years in the family of a sister who was a paralytic and who was the wife of Mr. Shwab, who was one of the beneficiaries in the deed of trust, the executor of decedent's will and her business partner. Mr. Shwab had sole charge and management of the business, which was carried on at Nashville, Tenn., where Mr. Shwab and his family resided. During his life he was to

[2] "But a transfer may be said to be made in contemplation of death if the expectation or anticipation of death in either the immediate or reasonably distant future is the moving cause of the transfer."

receive the entire income from the trust estate. He was given the right to require sale of the trust securities to be made from time to time and select substitutes therefor, and to have accountings made to him by the trustees. After his death the income was to be divided among six of the children of Mr. and Mrs. Shwab, subject to letting in a seventh child on the failure of issue of any of the other six. There were other provisions not important here.

The trust deed contains an express recital of decedent's desire "to make a division of the part of her estate particularly described herein"—words naturally importing a testamentary conveyance. On May 26, 1915, slightly more than a month after the trust deed was executed, decedent, her sister and Mr. Shwab made their respective wills. Decedent's will, after making comparatively small bequests to the sister and her children, and providing for a continuance of the business after her death, at the option of Mr. Shwab, gives the latter absolutely the bulk of her estate, the will stating that "he and his wife, my sister Emma, and I have considered the disposition of our estates and agreed as to what under all the circumstances will be best for those for whom it is our desire to provide. * * * My sister will understand why I have bequeathed nothing to her. She has an abundance and well knows my affection for her, and that I have in contemplation that form of disposition of my estate which eventually will benefit those she loves so dearly"—referring to her sister's children. Considering the recitals we have quoted from the trust deed and decedent's will, and taking into account all the attendant circumstances, it was open to inference by the jury that the deed was intended by decedent as part and parcel of one and the same general testamentary disposition. In 1914 decedent purchased a summer home in Michigan and became at that time a resident of that state. She continued to live in her sister's family except during the summer. While there was testimony tending to show that decedent's motive in making the trust deed was merely to avoid Tennessee taxation, the jury was not bound under the evidence to so conclude, especially in view of the fact that she had never been called upon to pay taxes upon her securities in Tennessee, and that she was in fact a resident of Michigan when the trust deed was made. The record contains, and counsel have discussed, a variety of considerations affecting the question of motive and the broader question whether the trust deed was made in contemplation of death. We think it clear that the evidence presented a question of fact for the jury's determination.

5. The instruction that the "presumption" afforded by the prima facie clause of section 202 (*b*), which is referred to in subdivision (*a*) of the first division of this opinion, could be taken into account in determining the fact of "contemplation of death" was not erroneous.—*R. R. Co. v. Landrigan* (191 U. S., 461, 473-4). The provision in question raises a presumption of fact, not a presumption of *law* and under well-settled rules a presumption of fact may be taken into account determining the ultimate fact. The presumption is merely a rule of evidence whose enactment is within the legislative competency.—*Mobile, etc., R. R. Co. v. Turnipseed* (219 U. S., 35, 42). The very object of a presumption of fact is to supply the place of facts.—*Lincoln v. French* (105 U. S., 614, 617). Of course, a presumption can never be allowed against ascertained and established facts. But unless the statutory presumption may properly be taken into account in determining the ultimate fact, it has no office. Elements which, in the absence of evidence to the contrary, are made sufficient to conclusively establish the ultimate fact, can not be said to have no evidentiary influence in reaching that conclusion.

6. *Admission and exclusion of evidence:*—We find no reversible error in either of the respects complained of. The witness Spicer was not shown competent to answer the question put to him. It was plainly in-

competent for Mr. Shwab to state a fact which was for the ultimate conclusion of the jury, viz: whether Mrs. Dickel had any expectation that she was in danger of passing away in the near future. It was also plainly incompetent for the witness Hager to testify that he understood that Mrs. Shwab, Mr. Shwab, and Mrs. Dickel made their wills together "so that they would not excite Mrs. Shwab." He apparently had no first-hand knowledge of the matter. As to the inquiry of Mr. Shwab, on cross-examination, respecting the inclusion in Mrs. Dickel's income-tax return of the first year's income under the trust deed, the court had already held that the income tax returns were not admissible. The question asked Mr. Shwab regarding the making of such return was objected to only as "immaterial." No exception was taken to the overruling of the objection. The subject was, in our opinion, material. He then testified, without objection, that the first year's income from the trust estate was included in that income tax return as part of Mrs. Dickel's income. It was only after the question had been substantially repeated that it was objected to as "incompetent, immaterial, and irrelevant," but without statement of the ground of the asserted incompetency, and without motion to strike out the testimony already given. The objection was overruled, and the answer was substantially the same as before. The witness then testified at some length in explanation of an asserted mistake in making such inclusion. It is unnecessary, in our opinion, to determine whether the testimony in question was, for any reason, incompetent, for we think the objection on that score came too late. We do not intimate an opinion that it was incompetent. It was material to show that neither Mr. Shwab nor Mrs. Dickel had paid any taxes in Tennessee, or were liable to be required to so pay, in view of the fact that such liability had been put forward by plaintiff's counsel as the reason for making the trust deed in question.

Finding no error in the record, the judgment of the district court must be affirmed.

(T. D. 3123, January 28, 1921)

Income tax—Amortization allowance.

Revenue act of 1918—Amendment of articles 181, 182, 183, 184, 185 and 188 of Regulations No. 45, articles 186 and 187 remaining unchanged and a new article numbered 189 inserted.

Articles 181, 182, 183, 184, 185 and 188 of regulations No. 45 are hereby amended to read as follows, articles 186 and 187 remaining unchanged and a new article 189 being inserted:

Art. 181. *Scope of provisions for amortization.*—All allowances made to a taxpayer by a contracting department of the government, or by any other contractor, for amortization or fall in the value of property, whether such allowances were made as a part of the price of the product or in settlement of claims arising out of the cancellation or termination of contracts, shall be included in gross income. All payments arising out of the settlement of such claims shall be included in the accrued income of the taxable year in which such cancellation or termination (whether formal or informal) occurred. The amount of amortization to be allowed as a deduction from gross income, for the purpose of the tax, shall be computed in accordance with the provisions of articles 181 to 189, pursuant to which the deduction must be made, and not upon the basis of any amounts contractually or otherwise determined.

Art. 182. *Depreciation of amortized property.*—The allowance for amortization shall be inclusive of all depreciation during the amortization period on property subject to amortization (see art. 186). Depreciation will be allowed, beginning at the close of the amortization period, upon property the cost of which has been partly amortized. Depreciation on partly amortized property shall be based on the value of such property

after the amortization allowance has been deducted. Property which has been amortized to its scrap value shall not further be subject to depreciation.

Art. 183. *Property cost of which may be amortized.*—The taxpayer may deduct from gross income a reasonable allowance for amortization; such deduction not to be in excess of the cost of buildings, machinery, equipment, or other facilities constructed, erected, installed, or acquired on or after April 6, 1917, for the production of articles contributing to the prosecution of the present war, or of vessels constructed or acquired on or after such date for the transportation of articles or men contributing to the prosecution of the present war.

In the case of property the construction, erection, installation or acquisition of which was commenced before April 6, 1917, and completed subsequent to that date, amortization will be allowed with respect only to that part of the cost incurred on or after April 6, 1917, and which was properly entered on the books of the taxpayer on or after that date.

Art. 184. *Cost which may be amortized.*—The total amount subject to amortization shall be the difference between the original cost of the property if constructed, erected, installed, or acquired on or after April 6, 1917; or if acquired partly before and partly after April 6, 1917, then that part of the cost incurred on or after April 6, 1917, and properly entered on the books of the taxpayers on or after that date, less any amounts deducted for depreciation, losses, etc., prior to January 1, 1918, and the value of the property on either of the bases indicated below:

(1) In the case of property useful to the taxpayer only during the period of its operation as a war facility, and which has been sold or permanently discarded, or which will be sold or permanently discarded within three years after the termination of the war; the value shall be the actual sale price or estimated fair market value as of date when the property was or will be permanently discarded, such fair market value to be reestablished at and as of the time of the investigation by engineers of the bureau of internal revenue.

(2) In the case of property not included in (1) above, the value shall be the estimated value to the taxpayer in terms of its actual use or employment in his going business; such values to be not less than the sale or salvage value of the property: *Provided, however,* That for the purposes of returns made in 1919, the preliminary estimate of the amount of such amortization shall not, in any case, have exceeded 25 per cent of the cost of the property. In the determination, by engineers of the bureau of internal revenue, of the proper amortization allowance, the estimated value to the taxpayer of the property in terms of its actual use or employment in his going business, shall be as of the time of such determination. In the final determination the amount of the amortization allowance will be ascertained upon the basis of stable post-war conditions under regulations to be promulgated when these conditions become apparent.

Special record of all property falling in (1) above, must be preserved by the taxpayer, and the commissioner must be promptly notified (*a*), if after having been in good faith permanently discarded or dismantled, property shall in any case be restored to use because of conditions not foreseen or anticipated at the time it was discarded; or (*b*) of the selling price, if sold.

Art. 185. *Amortization period.*—The amortization allowance shall be spread in proportion to the net income (computed without benefit of the amortization allowance) between January 1, 1918 (or if the property was acquired subsequent to that date, January 1 of the year in which acquired), and either of the following dates:

(*a*) If the claim is based on (1) of article 184, the date when the property was or will be sold or permanently discarded as a war facility;

or (*b*) if the claim is based on (2) of article 184, the actual or estimated date of cessation of operation as a war facility.

All taxpayers claiming an allowance for amortization shall compute (or, to the extent that accurate computations can not be made, shall estimate) the amount of their net income for the period between January 1, 1918, and the dates specified above, and shall also compute (or estimate as above) that part thereof properly assignable to each of the calendar years falling within the amortization period; and the amount of income so computed or estimated shall be the basis for apportioning the amounts of amortization applicable to each of the calendar years affected. Taxpayers reporting on the fiscal year hasis shall (*a*) in all computations based upon 1918 rates for fiscal years ending in 1918 and 1919 use the amount of such allowance apportioned to the calendar year 1918; (*b*) in all computations based upon 1919 rates for a year beginning in 1918 and ending in 1919 use the amount of such allowance apportioned to the calendar year 1919; and (*c*) in all computations for subsequent fiscal years use the number of twelfths of the allowance apportioned to each calendar year falling within such fiscal year that there are months of such calendar year falling within such fiscal year.

ART. 186. To remain unchanged.

ART. 187. To remain unchanged.

ART. 188. *Sale of amortized property.*—In the case of the bona fide sale of amortized property before three years from the termination of the war, the sale price thereof will be considered as reflecting the correctness or incorrectness of the amortization allowance made, due allowance being made for depreciation sustained since the close of the amortization period.

ART. 189. *Information to be furnished by the taxpayer.*—The taxpayer's claim for amortization must be complete and comprehensive in all respects. The commissioner will not entertain claims which do not clearly set forth full data with respect to the property which it is desired to amortize.

To assist the taxpayer in compiling this information the commissioner has prepared guide form 1007-M, which explains in detail the manner in which claims for amortization should be presented. A copy of this guide form will be furnished to the taxpayer upon application to the commissioner.

Students' Department

EDITED BY H. A. FINNEY

The examination questions of the American Institute of Accountants are now used by thirty-two state C. P. A. boards as well as by the institute. Readers of THE JOURNAL OF ACCOUNTANCY who were candidates in the November examinations conducted by these boards or by the institute are, therefore, already familiar with the problems. These solutions, it should be understood, merely represent the opinion of the editor of this department and are not official solutions by the institute.

SOLUTIONS OF AMERICAN INSTITUTE OF ACCOUNTANTS' EXAMINATIONS

EXAMINATION IN ACCOUNTING THEORY AND PRACTICE—PART II—(*Continued*)

Question 4:

Indicate by appropriate journal entries the various debits and credits you would make in setting up the following reserves for a balance-sheet, explaining briefly how you would determine the proper amount of each reserve.

(a) Reserve for bad and doubtful debts.
(b) Reserve for trade discounts.
(c) Reserve for cash discounts.
(d) Reserve for state, county and city taxes accrued.

Answer, Question 4:

(a) Reserve for bad and doubtful debts.

Debit bad debts.
Credit reserve for bad and doubtful debts.
To set up a reserve for estimated loss on bad debts.

Debit reserve for bad and doubtful debts.
Credit accounts receivable.
To charge off account ascertained to be worthless.

The amount to set aside in the reserve would be determined from experience as to bad debt losses in the past or by examining all the accounts receivable and estimating the probable loss in collecting them. The losses on accounts arising from sales of various years may be divided by the sales of the respective years to obtain a rate of loss based on sales. The sales of the current year would then be multiplied by this rate, modified in the light of any information indicating that future losses would be greater or less than the losses in the past. Or the annual losses may be divided by the accounts receivable at the beginning of the year to determine the rate of

loss. This rate would be applied to the accounts receivable at the date of the balance-sheet to determine the total desired reserve. The amount to set up would be the difference between the reserve already on the books and the desired reserve. This method has the advantage of reducing the carrying value of the accounts receivable to their estimated realizable value at the date of the balance-sheet, but it has the disadvantage that the reserve will probably be called upon to absorb losses not only on the accounts on the books at the date of the balance-sheet but also on accounts arising during the next year, and it may therefore prove to be inadequate.

(b) Reserve for trade discounts. It is difficult to understand what object a company could have in setting up such a reserve. Operating reserves are intended to record a decrease in an asset already taken place, such as the reserve for depreciation, a possible or probable loss in the realization of an asset, such as the reserve for bad debts, or a liability, such as a reserve for taxes. A reserve for trade discounts would not seem to be necessary unless there is some uncertainty as to whether or not customers will take advantage of the trade discounts offered. But there is no contingency about true trade discount. The trade discount is deducted on the invoice, and the customer is charged with only the net amount after deducting the discount. After the customer's account has been charged with only the net amount, trade discounts cannot further decrease the amount collected.

(c) Reserve for cash discount. There is a contingency in the case of cash discount, for the customer may pay the bill within the discount period or he may fail to do so and lose the discount. If it is desired to value the accounts receivable at the net amount less the discount, it will be necessary to estimate from the records what per cent of the accounts are usually paid by customers within the discount period. This per cent will then be applied to the total open accounts subject to discount and not past due, to ascertain the probable cash discount which will be taken by customers.

Debit discount on sales.
    Credit reserve for cash discounts.
To set up a reserve of the amount of the probable cash discounts to be taken by customers in settling their accounts.

Cash.
Reserve for cash discounts.
    Accounts receivable.
To show settlement of an account, the discount being charged to the reserve,

(d) Reserve for state, county and city taxes accrued. This reserve would be credited with an amount ascertained by estimating the assessed valuation of the taxable property, multiplying by the tax rate and multiplying

this product by the fraction representing the portion of the tax year which has expired.

Debit taxes.
    Credit reserve for taxes.
To set up a reserve for the estimated accrued property taxes at this date.

If this reserve is accrued monthly the entire amount of the taxes paid will be charged against the reserve:

Debit reserve for taxes.
    Credit cash.
To record payment of property taxes.

If there is a credit balance in the reserve it should be closed out, the credit being made to surplus and profit and loss in the proportion in which the over-accruals applied to the prior year and to the current year.

If the reserve is set up merely at the end of the year, and no monthly accruals are made, the portion of taxes applicable to the prior year will be charged against the reserve and the balance will be charged to taxes as a current expense. The balance of the reserve, whether a debit or a credit, should be closed to surplus.

Question 5:

It is now becoming quite common practice for corporations to insure the lives of their principal officers, so that upon their deaths the corporations may be, in a measure, reimbursed for the loss to the business. You are asked to indicate what sort of entries would be made by a company, from time to time, if it paid the insurance premiums on a policy of insurance for $50,000.00 carried on the life of its president under the four classes of insurance policies indicated below:

Ten-year renewable term policy.
Twenty-payment life policy.
Straight life policy.
Twenty-year endowment policy.

Also indicate what entries should be made in the books for the receipt of the $50,000.00 principal of the different classes of policies, supposing the president of the company died during the fifth year of the insured term.

Answer, Question 5:

10-Year renewable term policy. Under this policy there is no cash surrender value, and the total annual premium should be charged as an expense. At the rate of $13.49 per thousand at the age of 35, the annual premium on $50,000.00 would be $674.50, and the annual entries would be as indicated in the following table. In all the illustrations in this solution the matter of dividends is ignored, as there is no information as to whether they are applied in reduction of the premiums or in additions on the policy. If applied against the premiums the effect would be merely a reduction of the amount of the entry charging premiums and crediting cash.

TABLE OF ENTRIES

Beginning of year	Debit Life insurance premiums	Credit Cash
1	$674.50	$674.50
2	674.50	674.50
3	674.50	674.50
4	674.50	674.50
5	674.50	674.50

Entry for collection of policy during the fifth year:

Debit cash	$50,000.00	
Credit surplus		$50,000.00

20-Payment life policy. This policy has a cash surrender value—in most companies at the end of the third year. This cash surrender value is an asset which continually increases with the life of the policy. At the end of the third year it should be put on the books, with offsetting credits to surplus for two-thirds of the value, or the amount applicable to the first two years, and to life insurance premiums for one-third, or the amount applicable to the current year; and this one-third represents a reduction of the premium expense for the year. At the beginning of each year thereafter there should be an entry for the payment of the premium, and at the end of the year an entry showing the increase in the cash surrender value. At the rate of 33.13 per thousand at the age of 35 the entries would be as tabulated below:

TABLE OF ENTRIES

Year	Debit Cash sur. val.—Life ins. policy	Debit Life ins. premiums	Credit Life ins. premiums	Credit Cash	Credit Surplus
1—Beginning		$1,656.50		$1,656.50	
2—Beginning		1,656.50		1,656.50	
3—Beginning		1,656.50		1,656.50	
3—End	$2,400.00		$800.00		$1,600.00
4—Beginning		1,656.50		1,656.50	
4—End	1,150.00			1,150.00	
5—Beginning			1,656.50		1,656.50

Entry for collection of policy during the fifth year:

Debit cash	$50,000.00	
Credit cash surrender value—life insurance policy		$ 3,550.00
Surplus		46,450.00

Straight-life policy. The entries during the first five years would be the same as under a 20-payment life policy, excepting as to amount.

TABLE OF ENTRIES

Year	Debit Cash sur. val.—Life ins. policy	Debit Life ins. premiums	Credit Life ins. premiums	Credit Cash	Credit Surplus
1—Beginning..		$1,244.50		$1,244.50	
2—Beginning..		1,244.50		1,244.50	
3—Beginning..		1,244.50		1,244.50	
3—End.....	$1,150.00		$ 383.00		$ 767.00
4—Beginning..		1,244.50		1,244.50	
4—End.....	$ 700.00		700.00		
5—Beginning..		1,244.50		1,244.50	

Entry for collection of policy during the fifth year:

Debit cash.....	$50,000.00	
Credit cash surrender value—life insurance policy.....		$ 1,850.00
Surplus		48,150.00

20-Year endowment policy. As this policy has a cash surrender value, the entries will be of the same nature as those already described. Still using the age of 35, the entries at the rate of $47.12 per thousand would be:

TABLE OF ENTRIES

Year	Debit Cash sur. val.—Life ins. policy	Debit Life ins. premiums	Credit Life ins. premiums	Credit Cash	Credit Surplus
1—Beginning..		$2,356.00		$2,356.00	
2—Beginning..		2,356.00		2,356.00	
3—Beginning..		2,356.00		2,356.00	
3—End.....	$4,450.00		$1,483.00		$2,967.00
4—Beginning..		2,356.00		2,356.00	
4—End.....	1,950.00		1,950.00		
5—Beginning..		2,356.00		2,356.00	

Entry for collection of the policy during the fifth year:

Debit cash.....	$50,000.00	
Credit cash surrender value—life insurance policy.....		$ 6,400.00
Surplus		43,600.00

Question 6:

In examining the accounts of a corporation engaged in the manufacture of a variety of articles in respect of which a specification cost system is maintained as an integral part of the bookkeeping (which, so far as inventories and cost are concerned, forms the basis of the monthly financial accounts comprising balance-sheet and profit and loss account), you find a large discrepancy between the total value of the physical inventory of manufactured stock and work in progress, as priced at specification costs

and the corresponding general ledger account, the physical inventory value being substantially less than the relative book values. What investigation would you expect to make to ascertain the cause of the discrepancy? What factors would you expect to find contributing to it? And how would you dispose of the discrepancy? And upon what theory would you recommend that adjustment be made?

Answer, Question 6:

In a specification cost system, the manufacturing accounts are charged with the actual expenses and credited with finished product and work in process at the specification costs. The finished product account and the goods in process account are therefore book inventories, and any discrepancy between actual and estimated costs will appear as a balance in the manufacturing account. If the estimates are too high the costs will be over-absorbed and the manufacturing account will have a credit balance. If the estimates are too low the costs will be under-absorbed and the manufacturing account will have a debit balance.

The question states that the specification costs are the basis of the book inventories used in the monthly balance sheet and profit and loss statement, and it also states that the physical inventory is priced at specification costs. Therefore the two inventories should agree unless there are errors in the computation or differences in the count. A difference in the count might be caused by:

(a) Fewer goods finished than were recorded as finished, resulting in an over-statement of the book inventory of finished goods.

(b) Fewer goods put into process than were recorded as put into process, resulting in an over-statement of the book inventory of goods in process.

(c) Goods removed from stock without recording their removal.

(d) Articles overlooked in making the count.

The first three of these possible causes indicate carelessness in handling the cost records or possible theft. Causes (a) and (b) would be adjusted by a recomputation of cost on the basis of the actual quantities finished and put into process, with an adjustment of the earnings to the extent of the change in cost of articles sold and an adjustment of the inventory to the extent of the change in the cost of articles unsold. In the case of (c), if the goods were sold without record, there would be a charge to cost or sales and a credit to finished goods. If the goods were stolen, the charge would be to surplus. Cause (d) would be ascertained by a recount, the only adjustment required being a change in the amount of the physical inventory.

The statement of the question to the effect that the book inventories and physical inventories were both priced at specification costs limits the causes of the discrepancy to error in quantities or in computations. Ordinarily, however, the point of interest in a specification cost system is the variation between actual cost and specification cost, and this variation is measured by the under-absorption or over-absorption of cost appearing as a balance in the manufacturing account rather than as a discrepancy between the book

and physical inventories. When it becomes apparent that the costs are not correctly absorbed the cause should be ascertained.

The first step would be a comparison of the actual material cost with the corresponding specification cost to ascertain whether there are any important variations or not. A similar procedure should be followed for labor; and of course there would be a comparison of the actual factory overhead expenses with the estimated amount included in the specification costs.

In regard to the raw material, the examination will consist of a comparison of actual invoice prices with the specification cost used, particular attention being given to whether or not freight, discount, storeroom charges and similar items have been handled uniformly—that is, if included in the specification material cost, they should be included in the material accounts on the books and not in the other accounts.

As to labor, there will be two elements to consider: labor rates and the unit cost of production. A check will be made to ascertain if the labor rates actually paid are the same as the labor rates used in the specification costs, and if overtime paid, bonuses, etc., are handled similarly in the ledger accounts and in the specification costs.

The unit cost of production is apt to disclose serious errors. For instance, it was found in one case that the employees over-reported the quantity of work performed, with the result that the factory showed a lower cost of labor per unit than the actual cost; and this lower cost was used in the specification costs, resulting in a very material under-absorption of labor costs in cost of sales as well as in work in process and finished product.

The discrepancy in burden will undoubtedly exist, because if the volume of actual production is materially in excess of the estimated volume there is apt to be over-absorption of burden, and, on the contrary, if the volume of production is materially less than expected there is apt to be under-absorption.

After the various factors have been analyzed, an effort should be made to allocate the discrepancies as between inventories of finished products and work in process and cost of goods sold, the purpose of the adjustment being to state the inventories at cost.

Question 7 (optional):

What could a purchaser who wished to realize 3 per cent on his investment give for a bond for $10,000.00 which had four years to run at 5 per cent interest, payable yearly, and thereafter was payable with a bonus of 10 per cent?

Solution, Question 7:

$1 \div 1.03 = .97087379$ P. V. @ 3% of 1 due 1 period, hence
$.97087379 \div 1.03 = .94259591$ P. V. @ 3% of 1 due 2 periods, hence
$.94259591 \div 1.03 = .91514166$ P. V. @ 3% of 1 due 3 periods, hence
$.91514166 \div 1.03 = .88848705$ P. V. @ 3% of 1 due 4 periods, hence

Present value of par and premium:

$11,000.00 × .88848705 = ... $ 9,773.36

Present value of coupons:

1.00 — .88848705 = .11151295 compound discount, .11151295 ÷ .03 = 3.717098 P. V. of annuity of 1 $500.00 (annual coupons) × 3.717098 = ... 1,858.55

Price $11,631.91

Proof-Table of Amortization

End of year	Debit Cash	Credit Interest	Credit Bond account	Balance $11,631.91
1.....	$ 500.00	$ 348.96	$151.04	11,480.87
2.....	500.00	344.43	155.57	11,325.30
3.....	500.00	339.76	160.24	11,165.06
4.....	500.00	334.95	165.05	11,000.01
	$2,000.00	$1,368.10	$631.90	

EXAMINATION IN AUDITING

November 16, 1920, 9 A. M. to 12:30 P. M.

Answer all the following questions:

Question 1:

You are called upon to audit the accounts of a large railroad system. State shortly what its sources of income are, what records you would expect to find containing the details of them, how they are generally summarized in order to bring them on the books of the company, and how you would satisfy yourself of their accuracy.

Answer, Question 1:

If enough students of accounting were interested in the subject of railroad accounts to justify the use of the necessary space, it might be desirable to devote a series of articles in this department to answering this question. The assistant comptroller of a large railroad with general offices in Chicago was asked to "state shortly what its sources of income are." The following is condensed from his statement, which occupied three single-spaced typewritten pages:

This railway company derives its revenue from the following sources:

Freight revenue. The freight earnings are derived from the handling of local freight, and this carrier's proportion of freight handled on through way-bills on basis of tariff rates. Also the transportation of mail matter and empty pouches at freight tariff rates. Revenue received from reconsigning privileges, stop privileges and transit privileges are also credited to freight revenue.

Passenger revenue, the earnings derived from the transportation of passengers, based on regular tariff fares. The sources of these earnings are from the sale of local tickets, this company's proportion of foreign tickets sold by our agents and foreign tickets sold by agents of other lines to destinations on this company's lines. This also includes mileage scrip

honored and conductors' cash fare collections, as well as the surcharge recently added to sleeping-car fares.

Excess baggage, revenue derived from the transportation of baggage in excess of the authorized allowance, which is usually 150 pounds, and from the transportation of articles such as baby carriages and bicycles.

Sleeping car revenue, derived from the sale of berth and seat accommodations in sleeping cars.

Parlor and chair car revenue, derived from seat accommodations in parlor cars.

Mail revenue, amounts received from the United States post office department for the transportation of mail are credited to this account, and fines assessed by the government for failure properly and promptly to handle mail are charged to this account.

Express revenue, including amounts received from the express company for the transportation of express matter, and for the use of facilities on trains and at stations incident to such transportation.

Other passenger train revenue, from the transportation of packages, newspapers, dogs, etc., as well as lump sums received for transportation of passengers on regular or chartered trains in excess of the regular tariff fares.

Unclaimed penalty collections, the value of mileage books, coupons and scrip books unredeemed.

Milk revenue, from the transportation of cream, milk, etc., on the basis of tariffs at so much per package.

Switching revenue, received for switching cars loaded or emptied between connecting lines and between local industries or at industry plants.

Special service train revenue, earnings received for running trains either on the basis of a rate per mile or a lump sum rate for the train, including the handling of baggage cars in special trains for theatrical companies and the running of trains for federal and state governments for the transport of troops.

Other freight train revenue.

Dining and buffet revenue.

Hotels and restaurants,

Station, train and boat privileges.

Parcel room revenue.

Storage—freight.

Storage—baggage.

Demurrage.

Telegraph and telephone.

Stock yards, including revenue from feeding, watering and bedding live stock at company stock yards; also revenue from shearing and dipping sheep and cattle, stabling horses and inspecting live stock.

Rents of buildings and other property.

Miscellaneous revenue.

Joint facilities.

Revenue from miscellaneous operations, such as interest on track material borrowed by other companies.

Hire of freight cars.

Rent from locomotives.

Rent from passenger train equipment.

Rent from work equipment.

Income from lease of road.

Dividend income, covering dividends received on stocks owned.

Interest income, covering interest on bonds and other interest-bearing investments.

As to "what records you would expect to find containing the details of them, and how they are generally summarized in order to bring them on the books of the company," I am informed by a railroad accountant that "these records comprise something like fifty separate forms, which, of course, would be too lengthy to permit of their being described." And when so much space has been required merely to mention the sources of income, it would seem that a volume would be required for an adequate description of the procedure by which an auditor would satisfy himself of their accuracy. Certainly a reasonable proportion of the space devoted to answering the ten auditing questions is wholly inadequate.*

Question 2:

In auditing the accounts of a large corporation you find an account with Liberty bonds charged with $200,000.00, representing the cost of bonds subscribed and paid for by the company. At the date of the balance-sheet to which you are to certify, the bonds had a market value of $187,500.00. What attitude would you take as to their valuation in the balance-sheet?

Answer, Question 2:

There are two rules for the valuation of securities. In the case of dealers in securities, the rule is that the securities be valued at cost or market, whichever is lower, because the securities are stock in trade. When stocks or bonds are held as permanent investments by companies not dealing in them, the rule is that stocks be valued at cost, and that bonds be valued at cost plus the amortized discount or minus the amortized premium. Presumably the corporation referred to in the question is not a dealer in securities, and hence the second rule would apply. As the bonds were apparently purchased at par, they should be shown on the balance-sheet at their cost, $200,000.00, there being no discount or premium to amortize. The market value might be shown in parentheses, but there is no necessity for doing so, because every one knows that Liberty bonds are quoted below par.

Question 3:

What do you understand by the terms

(a) Contingent assets?

(b) Contingent liabilities?

*[The editor of the *Students' Department* overlooks the phraseology of the question. The demand is that the candidate state "shortly." The board of examiners doubtless desired a list of the principal items which would occur readily to the average practising accountant or in fact to the ordinary man of business.—*Editor* THE JOURNAL OF ACCOUNTANCY.]

Give three illustrations of each.
Where would you look for items?
Should they be set up on the books of the company?
Should they appear on a certified balance-sheet of the company? If so, where and how stated?

Answer, Question 3:

A contingent asset is property the title to which may or may not vest in the claimant or an unacknowledged claim which may or may not develop into an unconditional receivable, depending on the outcome of a dispute or other uncertainty.

A contingent liability is a claim which is not at present a positive liability but may become one through the action or default of a third party or through the outcome of some other uncertainty.

When notes receivable have been discounted a contingent asset and a contingent liability have been created. If the debtor pays the note to the party to whom it has been negotiated the contingent asset does not develop into a real one and the contingent liability does not become real. But if the debtor does not pay, the endorser must. Thus the contingent liability becomes positive, and since the endorser has a claim against prior endorsers as well as the maker of the note, his contingent asset develops into a real asset. If the books have been properly kept, the facts would appear in the accounts, the contingent asset in the notes receivable account being offset by the contingent liability in the notes receivable discounted account. If discounted notes have been credited to the notes receivable account, a statement should be obtained from the client's bankers and note brokers as to the amount of unmatured discounted paper held by or disposed of through them. The facts would be shown on the certified balance-sheet by deducting the discounted notes from the total of the notes on hand and discounted. The contingent liability might also be shown short on the liability side.

A contingent asset will arise when a company has paid under protest a larger federal tax than it considers due and has instituted or intends to institute proceedings to recover. Such a claim would be found by examination of the company's tax records; or information might be received from the company's officers or attorney. It would usually be omitted from the accounts; and if set up on the balance-sheet it should be offset by a reserve.

There might be deposits of various sorts coming under the classification of contingent assets. When deposits have been made on account of court costs of a case not yet come to trial, the deposit would be a contingent asset dependent upon the outcome of the trial. It should appear in the accounts, separated from the cash, and in the balance-sheet under a heading clearly stating its nature.

Cumulative preferred stock dividends in arrears are contingent liabilities. The auditor would discover them by comparing the amount of dividends paid on the stock with the amount which should have been paid to fulfill all requirements. The books would not show the amount of the dividends in arrears, as no entry is made for dividends until they are declared. On the

balance-sheet they should be shown by dividing the surplus, if it is in excess of the dividends in arrears, or by a footnote if the surplus is less than the unpaid dividends.

Pending law suits are contingent liabilities which might be found by examination of the minutes or by communication with the client's attorney. The liability would not appear on the books, and it is doubtful whether or not an auditor should insist on clearly showing it as such on the certified balance-sheet, as the client might object on the ground that the appearance of the item on the balance-sheet might be interpreted as an admission of liability. If the auditor believes there is a great probability of an adverse decision of the suit, he might insist on the creation of a reserve for contingencies which would have the effect of reducing the surplus without publishing what could be construed into an acknowledgment of the debt.

Question 4:

How may the amount of a merchant's stock on hand be estimated from time to time when it is not practicable to take a physical inventory more than once a year?

Answer, Question 4:

Stock on hand may be estimated at dates between the taking of physical inventories by applying the gross profit method. The rate of gross profit on sales since the last inventory may be estimated on the basis of the rate of gross profit earned on sales in prior periods. Any changes during the period in the cost or selling price of merchandise would have to be taken into consideration in estimating any probable variation between the rate earned in prior periods and the rate earned in the current period. The sales since the date of the last inventory would be multiplied by this estimated rate of gross profit to determine the estimated gross profit on the goods sold. Then the sales minus this estimated gross profit would be the estimated cost of goods sold since the last inventory. The opening inventory plus the purchases, freight and other additions to the cost of goods, minus the estimated cost of goods sold, would give the estimated inventory.

Question 5:

State concisely your understanding of the purpose of and the difference between the following kinds of audits, indicating briefly your conception in the absence of special instruction of the extent of your responsibility in each case, whose interests you would consider yourself obligated to protect, and the forms of certificates you would expect to furnish, assuming no qualifications were desired. Except where stated to the contrary, you may assume the audits relate to a corporation.

(a) Continuous or periodical cash audit.
(b) Annual audit.
(c) Financial audit or investigation.
(d) General audit of trustees' or executors' accounts for probate.
(e) Audit required under a patent infringement.

Answer, Question 5:

(a) A cash audit is one which has as its sole purpose the examination of cash records and supporting papers to determine whether there has been

any error or fraud in handling the cash. The auditor is expected to safeguard only the interests of the corporation, and its interests only to the extent of the cash. The audit would be continuous if the auditor exercised supervision and made examinations at frequent intervals during the period. Otherwise it would be periodical.

Certificate

"I hereby certify that I have examined the cash records of the Blank Company for the year ended December 31, 1919, and find no evidence of uncorrected errors or of fraud."

(b) The term "annual audit" is vague, as a cash audit, a balance-sheet audit or a detailed audit would be an annual audit if conducted annually. Probably what is meant is an annual detailed audit. A detailed audit is such a comprehensive examination of the books and other records as will satisfy the auditor that the record of income and expenses during the period and of the assets and liabilities at the end of the period is correct as to facts and accounting principles. The auditor would be responsible not only to the corporation itself, but to all third parties who might rely on his report for information.

Certificate

"I have audited the accounts of the Blank Company for the year ended December 31, 1919, and I hereby certify that in my opinion the above balance-sheet and profit and loss statement correctly present the financial condition of the company at December 31, 1919, and the operations of the company for the year ended on that date."

(c) A financial audit or investigation involves such an examination as will enable the auditor to report to his client upon the present financial condition of the corporation, the earnings of at least one and probably several periods and the prospects for the future so far as they affect the probable repayment of the loan under consideration. The auditor would be responsible to the corporation for a true statement of its condition and to the bankers or other ultimate purchasers of the securities who relied on his report.

Certificate

"I have audited the accounts of the Blank Company for the ——— years ended December 31, 1919, and I hereby certify that the above statements in my opinion correctly present the operating earnings of the company for each of the ——— years, the financial condition of the company at December 31, 1919, and the condition after giving effect to the proposed re-financing."

(d) In an audit of executors' accounts for probate, the auditor should see that all the assets in the inventory of the estate have been taken into the accounts and verify all the transactions of the executors affecting the principal and income of the estate, assuring himself that the law and the terms of the will have been observed. In auditing the accounts of trustees he should see that they have taken up the assets of the trust as turned over by the grantor or the executors, and that the records as to principal and income are

in conformity with the facts, the law and the provisions of the trust. The auditor should protect the interests of all beneficiaries, the trustees and executors and the court.

Certificate

"I have audited the accounts of ————, executors (or trustees) of the estate of ————, during the period from ———— to ————, and I hereby certify that the above summary statements correctly present the operations of the executors both as to principal and income, and that the foregoing balance-sheet is a correct statement of the financial condition of the estate at ————."

(e) An audit required under a patent infringement would be devoted to ascertaining the estimated profit which accrued to the corporation by reason of the infringement. The auditor would be responsible to the persons who engaged him to make the audit and it would be his duty to arrive at a fair and unbiased estimate.

Certificate

"I have audited the accounts of the Blank Company from ———— to ————, and I hereby certify that the foregoing statement in my opinion presents a reasonable estimate of the gross profit accruing to the Blank Company by reason of the alleged patent infringement, together with the proportion of expenses properly deductible therefrom."

Question 6:

What steps should be taken in the most complete possible verification of the capital stock account of a corporation in an audit for a year, if during that year the authorized capital was increased and new stock was issued and certain shares were acquired and held by the company (assuming that it is legal to do so), and if (a) there is a registrar of the stock and (b) there is not?

Answer, Question 6:

The capital stock account on the general ledger, minus the treasury stock account and the unissued stock account, would give the amount of stock purporting to be outstanding. This would be verified by listing the open stubs of the stock certificate book and the balances of the stockholders' accounts in the subsidiary stock ledger. The totals of these two lists should agree with the outstanding stock shown by the ledger. If there is a registrar of the stock, a certificate would be obtained from him as to the amount outstanding, but in as complete a verification as possible the foregoing comparisons would be made whether there is a registrar or not. As to the new issue, the auditor should see that it was authorized by the stockholders or directors, if the latter were empowered to do so, and by the proper state officer, and the subscription lists and cash records should be verified. The vouchers for the purchase of the treasury stock should be examined. If a transfer journal is kept the entries therein should be verified by reference to the cancelled certificates.

Question 7:

State definitely the procedure you would follow in verifying the liability of a corporation on account of notes payable as shown by its books.

Answer, Question 7:

The audit of notes payable should involve two things: determining whether or not the business received value for the notes—which would be accomplished by examining the vouchers underlying the transactions—and determining whether or not there are any unrecorded notes payable. The search for unrecorded notes payable would involve the following:

An analysis should be made of the interest account to find whether there was a recorded note corresponding to every interest payment or not. The client's bank should be asked for a statement of the notes held by it. If there is any evidence to indicate that money is borrowed from other sources, statements should be requested from them as to the amount of paper held. If creditors are asked for statements, it might be desirable to ask for the liability on notes as well as on accounts. If credits appear in the partners' capital accounts during the year, it is possible that these credits arose from investments of the proceeds of notes which are a liability of the business. If credits appear in officers' accounts it is possible that the corporation is liable on notes for loans which have been credited to these personal accounts instead of to notes payable; hence such payments should be investigated. If purchases of fixed assets appear on the books, it is possible that the purchases have been made on an instalment basis and the fixed asset accounts have been charged with payments made while notes are outstanding for the bulk of the purchase price. Therefore the auditor should ascertain whether the charges represent the entire purchase price or only that portion which has been paid.

Question 8:

You ae engaged by bankers to undertake an investigation of a business incidental to a proposed refinancing. The instructions from the bankers are received subsequent to the date of the balance-sheet which you are expected to certify. How would you proceed to verify the asset of cash, explaining the necessity for each step?

Answer, Question 8:

I would obtain the bank's statement in the client's office of the date of the balance-sheet, count the cash on hand at the date of the audit and ask the bank for a statement of its account with the client at the same date. I would then check the cashier's reconciliation of the bank account of the date of the balance-sheet and make a reconciliation of the date of the audit, thus determining the outstanding cheques and any other differences at the two dates. All entries for cash receipts and cash payments between the two dates should be verified by vouchers and returned cheques to see that all cash received has been recorded and that all cash credits represent actual disbursements. Otherwise a shortage at the balance-sheet date might be covered by unrecorded receipts or by fictitious entries for disbursements. Then,

to the sum of the cash on hand at the date of the audit and the bank balance at the same date there should be added the disbursements made since the date of the balance-sheet. From this total should be deducted the receipts for the same fractional period as shown by the cashbook. The resulting figure would represent the balance on hand at the date of the balance-sheet, which should be compared with the balance shown in the balance-sheet.

Question 9:

Draft forms of certificates for inventory and outstanding liabilities of a manufacturing business with which you are familiar, stating nature of the business.

Answer, Question 9:

It is most unusual for an auditor to certify merely to the inventory or merely to the outstanding liabilities of a business, and it is consequently difficult to understand what is required by the question. Usually the auditor would certify the balance-sheet and profit and loss statement as a whole and not any particular elements of them. If an occasion should arise in which an auditor was instructed to verify only these items, his certificates might be somewhat as follows: "I have verified the inventory of the Blank Company as of ———, and hereby certify that in my opinion the quantities are correct, and that each item is correctly priced at cost or market whichever was lower at the date of the inventory." Or, "I have examined the accounts and records of the Blank Company and hereby certify that in my opinion the balance-sheet of ——— discloses all the liabilities of the company outstanding at that date."

It is not unlikely that the question refers to the certificates which the auditor might require from officers and employees of the corporation. In the matter of inventory, the auditor might require a certificate from each person engaged in the preparation thereof, as follows:

"I hereby certify that I participated in preparing the inventories of December 31, 1919, by:

"Ascertaining quantities on hand, and I know of no understatement or overstatement thereof.

"Pricing; the raw material was priced at (cost), (market), (cost of market whichever was lower).

the goods in process were priced at ———

the finished goods were priced at ———

"Extending.

"Footing."

(Signed) ———

As to liabilities, an officer of the corporation might be required to certify somewhat as follows:

"I hereby certify that all liabilities known by me to be existing at December 31, 1919, appear on the books at that date."

(Signed) ———

Question 10:

In auditing the books of a corporation you find that certain officers, apparently without any authorization, are indebted heavily to the corporation. How would you proceed in such circumstances?

Answer, Question 10:

Usually such a condition is not indicative of fraud. It is merely evidence of an indifference to the legal requirements in regard to corporate funds. It may indicate a laxness so great as to induce fraud on the part of the officers. The auditor should call attention to the fact that the most charitable interpretation which can be put on such drawings is to call them loans, which would be subject to recovery if required for the payment of liabilities, and that the least charitable interpretation is to call them misappropriations. If the withdrawals are legitimate they should be authorized; in any event the attention of the directors should be called to their irregularity. Debit balances of this kind are often found in close corporations, particularly if the business has previously been conducted as a partnership. The former partners, having become accustomed to taking drawings, continue to do so, not realizing that partners may be allowed to take drawings in any free and easy manner they desire, while the profits of a corporation can be legally divided only by the formal declaration of a dividend. If these accounts represent drawings against an accumulated surplus account, the auditor should advise the declaration of a dividend to cover, so as to legalize the withdrawals and relieve the stockholders of liability to creditors on account thereof in the event of future financial difficulties.

American Institute of Accountants

CIRCULAR OF INFORMATION—SYLLABUS—BIBLIOGRAPHY

The board of examiners of the American Institute of Accountants has prepared and published a circular of information, including a syllabus and bibliography, which, because of its educational value and importance, is reproduced herewith. Everyone interested in the recent developments of professional accountancy and in the national organization in particular will welcome the publication of this comprehensive summary of information.

American Institute of Accountants

The following information is intended to answer inquiries from persons seeking advice in regard to membership in the American Institute of Accountants.

It is believed that the information is sufficiently complete to answer any reasonable inquiry which may be made.

I. WHO MAY BECOME MEMBERS

Men and women who have been five years continuously engaged in public practice immediately preceding date of application, or ten years in practice not continuously, one year of which immediately precedes date of application, who pass the examinations and are elected by the council.

II. WHO MAY BECOME ASSOCIATES

Men and women who have been four years engaged in public accounting, not necessarily continuously nor immediately preceding date of application, who pass the examinations and are elected by the council. In lieu of two of the four years the applicant may present a C. P. A. certificate of recognized standing or a certificate of graduation from an accounting school acceptable to the board of examiners.

III. APPLICATIONS

(a) Application for permission to take the examinations of the Institute must be filed sixty days prior to the date of examination on forms supplied by the Institute.

(b) No departure from the constitutional requirements can be made. Applicants seeking special consideration will receive no more attention than is accorded to those applying in the proper way.

(c) Applications must contain full details of all employment from time of leaving school.

(d) If applicants are unable to appear when directed to do so, the board of examiners will give consideration to the cause of such failure to appear, and, if the excuse be considered sufficient, appearance may be post-

poned until a later examination. Notice of inability to attend must be sent to the board of examiners prior to examination.

(e) The Institute does not supply application blanks for state boards. All applications to state boards must be made direct.

(f) An applicant applying to both Institute and a state board must file a separate application with each body.

IV. CANDIDATES FOR CERTIFIED PUBLIC ACCOUNTANT CERTIFICATES IN CERTAIN STATES

(a) Many state boards of accountancy have entered into a plan of co-operation with the board of examiners of the American Institute of Accountants whereby the Institute supplies questions to the state boards and also agrees to grade the papers if the state boards so desire. The Institute keeps a record of all papers graded by its board of examiners.

(b) The Institute will not consent to the examination of an applicant for any state certificate outside the state to which he is applying except in the case of a bona fide resident of such state.

(c) Candidates for certified public accountant certificates in states co-operating with the Institute may simultaneously or subsequently apply for admission as associates of the American Institute of Accountants without further technical examination, provided separate applications are made to the state boards and to the Institute, and provided also that the answers submitted at examinations are forwarded to the board of examiners of the Institute for grading.

(d) Every application to the Institute must be accompanied by full fees for initiation and examination. Even if applicants have already passed examinations conducted by state boards co-operating with the Institute, both initiation and examination fees must be paid when applying to the Institute.

V. PROCEDURE FOR APPLICANTS TO INSTITUTE

(a) In presenting a syllabus and bibliography the board of examiners of the American Institute of Accountants desires to impress upon prospective applicants that the examinations of the Institute are intended to demonstrate the applicant's ability to practise as a professional public accountant. The board feels that without actual accounting experience no one can logically be expected to have a sufficient practical knowledge of accounting to justify him in holding himself out to the public as a professional accountant. Accordingly, examinations are designed to demonstrate the applicant's knowledge founded not only upon text-books and instruction but also upon years of experience.

(b) The bibliography attached hereto is solely for the convenience of prospective applicants. The board of examiners does not recommend any one book especially, but those given in the list are regarded as representative of the authoritative literature on each subject.

(c) The prospective applicant is warned against the error of assuming that any one text-book is in the mind of the examiners in the prepara-

tion of questions. The board presents questions which are founded upon experience as well as upon pure theory. The syllabus is prepared in the hope of indicating broadly the general scope of examinations in each of the three subjects.

(d) The constitutional provisions concerning qualifications of applicants are as follows:

CONSTITUTION

Article II.

Sec. 2. Members shall consist of the following:

(b) Associates who shall have been in practice on their own account or in the employ of a practising public accountant for five years next preceding the date of their application and shall be recommended by the board of examiners after examination and elected by the council. The determination of who shall be considered as practising public accountants shall be made in all cases by the board of examiners.

(c) Accountants who shall present evidence of preliminary education satisfactory to the board of examiners, who shall have been in practice on their own account or in the employ of a practising public accountant for not less than five years immediately preceding the date of their application, who shall be recommended by the board of examiners after examination and elected by the council.

(d) Accountants in practice who shall present evidence of preliminary education satisfactory to the board of examiners, who shall have been in practice on their own account or in the employ of a practising accountant for not less than ten years, one year of which shall have immediately preceded date of application, who shall be recommended by the board of examiners after examination and elected by the council.

Sec. 3. Associates shall consist of the following:

(b) Persons who shall be not less than twenty-one (21) years of age and present evidence of preliminary education satisfactory to the board of examiners; and

(c) Shall have satisfactory training and experience in public accounting. The last-named qualification may consist of:

(1) Possession of a certificate of graduation from an accounting school recognized by the examining board and a certified public accountant certificate of a standard recognized by the examining board or instead of a certified public accountant certificate employment for not less than two years upon the accounting staff of a public accountant (students not completing the full course at an accounting school shall be given credit by computing the number of years of study satisfactorily completed as being equal to one-half the same number of years employed in the office of a public accountant); or

(2) Employment for not less than two years upon the accounting staff of a public accountant and possession of a certified public accountant certificate of a standard recognized by the examining board; or

(3) Not less than four years' experience in public accounting work either upon his own account or in the office of a public accountant by a person not holding a certified public accountant certificate of a standard recognized by the examining board; or

(4) Possession of an accountant's certificate issued under the

law of a foreign government of a grade accepted by unanimous action of the board of examiners and one year's satisfactory experience in practice in the United States of America; or

(5) In the discretion of the board of examiners exercised in each case, not less than three years' experience in teaching accountancy subjects in a school of accountancy recognized by the board of examiners.

(6) In addition to the foregoing qualifications, candidates for associate membership shall submit to examination by the board of examiners and, upon recommendation of that board, may be elected by the council.

VI. EXAMINATIONS

(a) Examinations are conducted about the middle of May and November each year. Special sessions for the conduct of oral examination may be held by the board of examiners if desirable.

Oral

(b) Under the provisions of the constitution the board of examiners is permitted to require candidates to pass written or oral or partly written and partly oral examinations.

(c) The rules of the board of examiners provided that persons who are over 30 years of age or are certified public accountants or possessors of equivalent foreign degrees approved by the board of examiners may be subjected to oral instead of written examination, provided such applicants present evidence of having been in public practice for seven years or in practice on their own account for five years.

(d) Oral examinations are technical in character and are designed to demonstrate the applicant's practical knowledge of accounting. The questions are based upon the questions of the written examinations, but an effort is made to permit practitioners who have been in practice for many years to explain their treatment of principles and cases involved in a somewhat more informal way than would be possible in a written examination.

(e) Each candidate is examined separately, and the transcript of all questions and answers is presented to the entire board for consideration.

(f) Oral examinations under the rules of the board of examiners must be conducted by members of the board of examiners. Such examinations are usually held in the principal centers of accounting activity, such as Boston, New York, Chicago and San Francisco, but special sessions may be held elsewhere in the discretion of the board of examiners.

Written Examinations for Admission as Associate

(g) Written examinations can usually be arranged to suit the convenience of applicants without involving a long journey to the place of examination.

(h) Applicants whose applications have been favorably considered by the board of examiners will be notified when and where to appear for examination. They may bring fountain pens, but no further supplies are required.

(i) The following is a brief syllabus of the written examination:
First Day—First session—Auditing, 3½ hours.
First Day—Second session—Accounting, 5 hours.
Second Day—First session—Commercial law, 3½ hours.
Second Day—Second session—Accounting, 5 hours.

Auditing

(j) Scope: Practice and procedure in the audit of books and accounts of industrial, commercial and financial concerns, municipalities, estates, etc.

Commercial law

(k) Examination covers only fundamental principles of common and statute law applicable throughout the United States.

Subjects:

(a) Negotiable instruments.
(b) Contracts.
(c) Corporations.
(d) Bankruptcy.
(e) Partnership.
(f) Federal income tax.

Accounting

(l) Examination in accounting is not divided into theory and practice. The entire subject is considered as one, and problems in practical accounting and questions in theoretical accounting are contained in the papers of both sessions.

Scope: Preparation of trial balance, balance-sheet, profit and loss account; cost, manufacturing, trading, consolidated, executorship, estate, railroad, public utility, shipping and municipal accounts; foreign exchange, investigations prior to public issuance of securities, stock-exchange practice and banking, interstate commerce commission returns, federal tax returns, preparation of statements for credit purposes, systematizing.

(Optional) Actuarial science, including annuities certain, present worth of future interest payments, sinking funds, etc.

(Questions in actuarial science do not extend to life contingencies. A knowledge of algebra up to and including the binomial theorem and the use of logarithms is essential).

Written Examination for Admission as Member

(m) In addition to the written examination set for those seeking admission as associates, applicants for admission as members must present theses at the time of their written examinations.

(n) Each thesis must consist of from 2,000 to 4,000 words upon one of a group of subjects to be proposed by the board of examiners and must be accompanied by an affidavit that it is the unaided work of the applicant.

(o) Associates seeking advancement to membership are required to present theses as above described.

VII. RESULTS OF EXAMINATIONS

(a) The board does not make known its solutions and answers, and does not divulge the actual marks given in any subject.

(b) Applicants who pass the examinations with peculiar distinction are generally mentioned by name in order of merit.

(c) Because of the great number of states using the Institute's questions and submitting the answers for grading by the Institute's examiners, results of examination cannot be made known, as a rule, within less than two months from date of examination.

(d) Failure in two subjects is regarded as failure in all subjects. Accounting theory and practice are regarded as one subject.

VIII. RE-EXAMINATION

(a) Applicants who fail in one subject are conditioned in that subject, and may be re-examined therein at a subsequent examination upon payment of a fee of $10.

(b) All re-examinations must be written.

IX. ELECTION

Passing the examination does not necessarily imply election to the Institute. The board of examiners recommends successful examinees to the council, which may elect or reject. As a rule, recommendation by the board is favorably considered by the council.

X. FEES AND DUES

(a) Initiation fees of members are $50; on advancement from associate to membership, $25; associates, $25.

(b) In addition, an examination fee of $25 is required of every applicant for admission as member, for advancement to membership or for admission as associate.

(c) Annual dues of the Institute are: by a member, $25; by an associate, $10.

(d) Copies of past examination questions are obtainable from the offices of the American Institute of Accountants at 10 cents each.

XI. BIBLIOGRAPHY

Suggested texts for reading in preparation for examination

(*See Section V., Paragraphs* (*b*) *and* (*c*), *Page* 5)

AUDITING

Title	Author	Publisher
Auditing Theory and Practice, Students' edition (1916-542p.)	R. H. Montgomery	Ronald Press.
Duties of the Junior Accountant (1918-102p.)	W. B. Reynolds & F. W. Thornton.	American Institute of Accountants
Approved Methods for the Preparation of Balance-Sheet Statements, April, 1917.	Federal Reserve Board	Government Printing Office.

COMMERCIAL LAW

Title	Author	Publisher
Elements of Business Law (1917).	E. W. Huffcut.	Ginn & Co.
Business Law (1918).	Thomas Conyngton.	Ronald Press.
Manual of Commercial Law (1898).	E. W. Spencer.	Bobbs-Merrill Co.

THEORY OF ACCOUNTS AND PRACTICAL ACCOUNTING

Title	Author	Publisher
Modern Accounting (1916-367p.).	Henry Rand Hatfield	D. Appleton & Co.
Accounting Theory and Practice, Vol. I (General practice) (1917-542p.).	Roy B. Kester.	Ronald Press.
Accounting Theory and Practice, Vol. II (Corporation problems) (1918-755p.).	Roy B. Kester.	Ronald Press.
Applied Theory of Accounts 1917-519p.).	Paul-Joseph Esquerré	Ronald Press.
Accounting Practice and Procedure (1917-315p.).	A. Lowes Dickinson	Ronald Press.
Problems in the Principles of Accounting (1915-102p.). (Accounting questions only)	Wm. Morse Cole	Harvard University Press.
Corporation Accounting.	R. J. Bennett.	Ronald Press.

COST KEEPING AND MISCELLANEOUS

Title	Author	Publisher
Manufacturing Costs and Accounts (1917).	A. Hamilton Church	Eng. News Pub. Co.
Expense Burden (1908-116p.).	A. Hamilton Church	Eng. News Pub. Co.
Principles of Factory Cost Keeping (1913-102p.).	E. P. Moxey.	Ronald Press.
Principles of Depreciation	Earl A. Saliers	Ronald Press.
Factory Costs (1911-611p.).	Frank E. Webner.	Ronald Press.
Cost Accounting (1919-576p.)	Nicholson and Rohrbach	Ronald Press.
Introduction to Actuarial Science.	H. A. Finney.	American Institute of Accountants.

Book Reviews

RETAIL ORGANIZATION AND ACCOUNTING, by PHILIP I. CARTHAGE. *D. Appleton & Co.*, New York. 350 pp.

Retail Organization and Accounting Control, written by a man who has had twenty years' experience in retail as buyer, sales promoter, comptroller and office manager, should prove a handy manual to the retail executive or accountant who is forced to provide for the needs of an expanding trade. "Theory," as the author says in his preface, "is entirely eliminated." It is, in fact, a detailed description of the methods of organizing a retail department store and of recording the financial operations from the original receipt of merchandise to the final profit and loss statement and balance-sheet—all the result of actual practice and experience. Public accountants will find little that is not covered by standard textbooks in the way of general principles, but as supplementary reading the book will furnish many hints and suggestions to those who are not familiar with department store accounts.

Strong exception must be taken, however, to the provision (p. 171) that consigned goods should be taken on the same basis as purchased goods and added to the inventory. It is not good accounting practice, and in many states is absolutely contrary to law, since it has the result of merging the goods, accounts receivable and funds of a principal with those of an agent. It also conflicts with the provisions of the federal income-tax inventory certificate, which require the title of all goods in the inventory to be vested in the taxpayer.

We presume it may be considered a sign of the times that the author uses the term "co-worker" in place not only of the old-fashioned "employee" but also apparently to embrace all the members of the establishment from the president or owner down to the humblest scrub-woman. (See p. 38). It reads somewhat oddly, and even the author shows by occasional lapses into the old terminology that it has not yet become habitual.

It is a pity that a book showing so thorough and practical a grasp of a complex subject should be marred by slovenly English, in places making the author say exactly the opposite of what the context shows that he means.

W. H. LAWTON.

PRINCIPLES OF ACCOUNTING, by A. C. HODGE AND J. O. MCKINSEY.

In the review of *Principles of Accounting* in the December JOURNAL OF ACCOUNTANCY, mention was made of the lack of an index. Since then the publishers have supplied the missing index and also the prefaces which were inadvertently left out. The index naturally facilitates the study of the book and appears to be ample and complete. The prefaces confirm the doubts of the reviewer as to the practical usefulness of the book to the man who seeks to make accountancy a profession. The authors state specifically that the aim of the text is to give prospective business managers "a fairly definite idea" of the service which should be provided by accounting, "a working knowledge" of fundamental principles and "an elementary knowledge" of the technique of accounting. Without expressing any opinion as to whether this programme will succeed in developing successful business managers or not, the reviewer still doubts whether it will produce the careful, exact and logical type of men fitted to become public accountants. The student who has only a "fairly definite idea" of accounting is the man responsible for the discouraging percentage of failures shown in the accounting examinations.

W. H. LAWTON.

Society of Certified Public Accountants of the State of New Jersey

At the annual meeting of the Society of Certified Public Accountants of the state of New Jersey, the following officers and trustees were elected for the ensuing year: Charles E. Mather, president; James F. Welch, vice-president; Theo. A. Crane, secretary and treasurer; John H. Bowman, Frank G. DuBois, Edwin G. Woodling, John B. Niven, Wm. H. Compton, Arthur Wright, Thomas R. Lill, trustees; Fred L. Main, Hyman Besser, auditors.

James A. Councilor and Alexander Thompson announce the formation of a partnership under the firm name of Thompson & Councilor, with offices in the Woodward building, Washington, D. C.

Goodman & Goodman and Nathan Vogel announce the consolidation of their practices under the firm name of Goodman, Vogel & Goodman, with offices at 949 Broadway, New York.

C. B. Hurrey and Franklin C. Parks announce the formation of a partnership under the firm name of Hurrey & Parks, with offices at 543-6 Munsey building, Washington, D. C.

Homer W. McCoy announces his retirement from McCoy & Co., 105 South LaSalle street, Chicago. The name of the organization has been changed to Hill, Joiner & Co.

Edward H. Bailey and Karl A. Brede announce the formation of a partnership under the firm name of Bailey & Brede, with offices at 54 Buhl building, Detroit, Michigan.

H. M. Stein, N. F. Ross and I. Sack announce the formation of a partnership under the firm name of Stein, Ross & Sack, with offices at 52 Broadway, New York.

Goldsmiths' Accountants, Penfield building, Philadelphia, announce that Henry F. Whitmore, Thomas R. Bell and Frank K. Ralston have been admitted to the firm.

Townsend. Dix & Pogson announce the opening of a branch office at 27 Bedford street, Fall River, Massachusetts, under the management of M. B. Lovelace.

The firm name of Hopstein, Olney & Co., has been changed to Hopstein, Harrison & Nhare, with offices at 47 West 42nd street, New York.

J. Arthur Greenfield announces the opening of an office in the Citizens National Bank building, Los Angeles, California.

Woodward & Gaskill announce the removal of their office to 339 I. W. Hellman building, Los Angeles, California.

Edwin H. Wagner & Co. announce the opening of offices in the Great Southern Life building, Dallas, Texas.

Smith, Brodie & Lunsford announce the opening of offices at 2107-9 Woolworth building, New York.

Victor Edward Buron announces the opening of an office in State National Bank building, Texarkana.

Charles Hecht & Co. announce the removal of their offices to 300 Madison avenue, New York.

Mucklow & Ford announce the removal of their offices to 420 Hill building, Jacksonville, Florida.

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Accounting for a Modern Hotel*

By A. G. Macmahon

The accounting necessities of a modern hotel differ widely from the simple requirements of the fast-disappearing commercial hotel, conducted on what was termed the "American plan," wherein the guest was charged a modest sum of so much a day, which covered room, meals and services, including, very often, the personal attention of the proprietor. In the huge modern hotels, housing from 500 to 2,000 guests, the room rate is the only thing that is certain by the day, all meals and other services being at rates according to service. This development in the method of conducting hotels involves peculiar accounting necessities not found in other kinds of business.

Practically all modern hotels are operated by what are known as operating companies. They are seldom conducted by the parties or companies owning the lands and buildings. It is usual for a company to be organized to purchase or lease for a long term of years the site for the hotel and to erect thereon the hotel building. An operating company is organized which leases the building, usually at a fixed rental. Ordinarily the company owning the building will furnish and equip the hotel, although this is sometimes done by the operating company. The accounting for the company owning the building presents no unusual features, but the accounting necessities of the operating company become quite complex and diffuse, as the hotel of today is a veritable city within itself. Many of them contain power plants, artesian water systems, printing plants for their stationery and menus, machine shops, carpenter shops, paint shops, as well as upholstering and electrical departments, all of which are usually "below the street" and quite unknown to the traveling public.

* A thesis presented at the November, 1920, examinations of the American Institute of Accountants.

Front Office

The first step in the accounting of the revenue in a hotel is when the guest signs his name on the hotel register and is assigned to a room. Immediately the room clerk or, in the larger hotels, one of the front office clerks, makes out a slip in triplicate or quadruplicate, on which is written the guest's name, room number, rate and date of arrival. This slip is about three inches long and three-quarters of an inch wide. One slip is placed in the room rack, which is arranged numerically by floors, indicating that the room has been sold; one copy is sent to the mail clerk who places it in his rack in alphabetical order; and the other copies are sent to the telephone operators and to "information," and in both places are racked alphabetically. Frequently these slips have the day of arrival printed in a different color for each day of the week. This is to attract attention of the night auditor, one of whose duties it is to see that all bills are rendered weekly.

The register sheets, which should be loose-leaf, are taken by the front-office bookkeeper, as soon as the guest is assigned to a room, and he opens an account for the guest in the guests' ledger. This ledger is sometimes of the loose-leaf variety; but more often it is a card ledger or what is known as a "room book." The room book requires some explanation, as it is to be found only in hotels. It is like a sales book such as is used by salespeople in a department store. It is ordinarily about nine inches by six inches in size and contains fifty pages, i. e., fifty original sheets, and has two carbon sheets to each original sheet. On the front cover it has spaces for the room number, when opened and when closed. Where these books are used a rack is provided, arranged according to room numbers, and under or over each room number there is a space large enough to hold one room book. When a guest is assigned to a room, the bookkeeper takes the book for that room and enters the name, address, rate and date of arrival. The sheets are provided with columns for charges from the café and sundries. When the guest pays his bill the first copy is given him as a receipt; the second copy goes to the auditor to support the collections and accruals; and the original is left in the book for the permanent record. Under this system the rack is the ledger and the room books represent the pages.

The front-office bookkeeper enters in the guests' ledger the charges from the restaurant, laundry or any other service or ex-

penditure on behalf of the guest, which are obtained from the cashbook, restaurant checks, laundry, tailor sheets, etc. The cash credits to the guests' ledger, where the room book is in use, are the care of the cashier, who, when the guest asks for his bill, makes the calculation of the number of days since arrival, totals the bill and enters the payment on his cash receipts sheet. These receipts are checked nightly when the night auditor compares the cash receipts with the room books. Where the loose leaf or card ledgers are used the bookkeeper makes the bill and credits the guest's account from the cash receipts book. The charges and credits to the general books from the front office are made from the summary sheet prepared by the night auditor.

Restaurant and Café

Most modern hotels conduct one or more dining-rooms, and the same system is applicable to all, whether they are termed dining-rooms or restaurants. Each dining-room has its own cashier, who ordinarily is supplied with an imprest working fund in order to make change. As a check, on which is written the guest's order, is necessary for the waiter to procure food from the kitchen and as the food represents money, the control over these restaurant checks must be strictly maintained. Ordinarily the cashier is supplied with the checks from the auditor's office. These checks are numbered serially and the cashier has a sheet provided with columns, one of which is for the numbers of the waiters. Before each meal the waiters secure a supply of checks from the cashier, who enters the numbers of the checks supplied in the column for the number, and as these checks are paid or come through for charging a guest, the cashier checks the number. When the waiter goes off duty he must turn in to the cashier any checks not used. It is usual to charge the waiter for any checks lost. It sometimes happens that when a waiter serves a party he will pocket the money and gladly pay the small fine for losing the check, but as all food is checked out of the kitchen, i. e., the waiter must pass in front of an employee known as the "food checker," who sees what is on the tray and takes the guest's check and prints the prices on it by running it through a register, which also registers the amount of the check, thus recording all food taken out of the kitchen by each waiter, it is possible to prevent such actions. Should the total of the checks turned in to the cashier by a waiter be less than the amount registered against him

by the food checker the difference would represent his theft. The checks that are to be charged to the guest's ledger, when the guest instead of paying cash signs his name and room number on the check, should be handled with extreme promptness—which means within a very few minutes—and be sent to the front-office bookkeeper as soon as received by the dining-room cashier; otherwise a guest may finish his dinner and immediately "check out," thus leaving unpaid the amount of his dinner check. The cashier's sheet is provided with columns for check number, cash checks, charge checks and waiters' numbers. Before commencing duty all blank checks in a cashier's possession are listed numerically and then entered in the column for waiters' numbers as they are handed to the waiters. As each check is used and comes back to the cashier with the cash or for charge, the amount of the check is entered in the amount column opposite the respective check number, and then extended into the cash column, if the check is paid, or into the charge column, if the check is to be charged to a guest. The cash is reported on the cashier's daily report, which is the cashier's sheet previously described. It is turned in to the general cashier with the total daily receipts, which, of course, must agree with the total of the cash checks column.

Night Auditor

The night auditor is peculiar to the hotel business. He audits all the transactions of the front office. This work he performs each night from about eleven o'clock to seven. During that time he audits all the transactions of the day ending when he commences work as affecting the front office. One night auditor can attend to from three hundred to four hundred rooms. Thus in the larger hotels several night auditors are required. The hotel business being one in which everything is transient, it is imperative that any errors be found immediately, for the disclosing tomorrow of an omitted charge to a guest may serve no monetary use, as by that time the departed guest may be five hundred miles away. The night auditor is provided with a summary sheet, which may be termed "front-office accounts receivable," "room earnings," or any such descriptive title, but the principle of accruals is the same, regardless of designation. These summary sheets are printed and arranged by floors, with a line for every guest room in the house, and arranged numerically. On the left side is a column for the room number, and, if the system is cumulative, i. e., carrying for-

ward the balance for each room from day to day, there will be a column for balance, columns for room, tailor, laundry, café or dining-room, telephone, transfer, cash and sundries. The sum of these items, excluding the balance in the second column, is placed in the total column, which represents the total charges for the room to the front-office accounts receivable. Following the total column of the charges is a section for credits, containing columns for cash, allowances, delinquent ledger, transfer and total. The sum of the credit columns is inserted in the total column and represents the credit to front-office accounts receivable. Where the cumulative method is in use the debit total column is added to the balance column, from which is deducted the credit total column, thus giving the new balance, which is inserted in the last column headed "balance," which forms the new balance to be inserted in the second column headed balance on the summary sheet for the next day. As before mentioned, these summary sheets are arranged by floors, so that valuable statistics can be prepared therefrom as to room earnings, floor earnings, house count, etc.

The chief peculiarity of the night auditor's duties is that he verifies each transaction independently of the guests' ledgers and finally reconciles with them. The usual procedure is to take the reports from tailor, laundry and telephone, and the cash receipts and cash disbursements sheet, enter all charges and credits on the summary and then prove the result against the original records. He abstracts the charges for dining-room from the dining-room cashier's report, previously described, and posts the charges to the respective rooms. The point here is that the front-office bookkeeper charges the guests' ledger from the dining-room checks, which are sent to him during the day by the dining-room cashier, whereas the night auditor posts his summary sheet from the dining-room cashier's report. Here the night auditor commences to verify the work of the front-office force. He checks the guests' ledger by room numbers and on his summary enters the room revenue for the day, which he obtains from the room book or account, as the case may be, the rate being entered on the room book or guest's account. While performing this operation he checks each charge or credit on the guest's account with the charges and credits for that room on his summary, and in this manner verifies all the charges and credits to the individual guest at one time, thus handling the ledger sheet or room book once. This method, whereby he

assembles all the charges and credits independently, reduces the likelihood of passing over an error in posting on the part of the bookkeeper. The number of rooms producing revenue on the summary may be confirmed by checking the summary with the room rack, which contains slips for all rooms occupied. It is also advisable to check the rate shown by the slip in the room rack. As a further provision against failure to account for all revenue, the register sheets may be compared with the room rack, which will disclose the presence of a guest registered for whom an account has not been opened. The accuracy of the room rack may further be verified by the housekeeper's daily report, which is a list of all room numbers, on which are noted all rooms actually occupied each night. The column for delinquent is for transferring to the ledger unpaid charges, which are part of the front-office accounts receivable, and is used for keeping charges for departed guests. When a delinquent guest comes to the hotel, these charges are transferred to the guests' ledger.

When the night auditor completes accruing the room earnings and checking all charges and credits he carries the totals of each sheet to a recapitulation sheet, which is arranged in the same form as the summary sheets, and this recapitulation is the basis of the entry placing the revenues on the general books. This sheet is usually provided with a control for the front-office accounts receivable, arranged to show balance yesterday plus charges for today according to the recapitulation sheet, less the credits for today, according to the recapitulation sheet. The result is today's balance, and a trial balance, if taken, should be in agreement therewith. In hotels in which the cumulative system is used, it is possible to have a trial balance each day, as the night auditor's summary sheet will reflect the balance opposite each room, and if the amount as shown by the room book or guest's account is in agreement, there is automatically a trial balance each day, as the summary sheet is in reality the guests' ledger in another form. This method entails more work and requires additional night auditors for a given number of rooms, but the added expense is repaid by the satisfaction of knowing that the front-office accounts are correct. A journal entry is prepared from these daily summaries compiled by the night auditor, charging front-office accounts receivable and crediting room revenue, dining-room, tailor, laundry and telephone revenues.

Other Departments

Many hotels operate coffee rooms or lunch counters, and these are conducted in some ways like the dining-room. Each room has its cashier and the customers' checks are in serial numbers for which there must be account; but as these places are conducted to give quick service, the food is not checked out of the kitchen as it is when sent to the dining-room. The greater part of the food is kept behind the counter and served by the waiters or waitresses. Unduly large portions or items omitted from the customers' checks are left to the superintendents to detect. Payment for all service is usually made in cash. The cashier rings up the sales on a cash register, which is proved by running an adding machine list of the checks and seeing that all checks are turned in. As each customer pays his own check, as a rule, there are, of necessity, some "walk outs"; but as long as the missing checks are within reason it would seem that the receipts are properly accounted when the checks turned in agree with the cash register readings. The cashiers make daily reports from the checks turned in, and the amounts are verified by the night auditor, who makes a reading of all registers nightly. The daily reports as made by the cashiers are turned in with the cash receipts to the general cashier, who charges his cash and credits lunch room revenue on his cash receipts book.

The barber shop, cigar stands, beauty parlor and soda stands are on a cash basis, with a cashier for each stand, and as all sales are rung up on a cash register, these departments present no unusual features. The several cashiers make daily reports which are turned in with the receipts to the general cashier, who credits the respective revenue accounts through the cash receipts book.

Storeroom

The storeroom does not present any accounting peculiarities, although it contains many features unlike a general storeroom that make the reconciling of the inventory on hand very difficult. It is charged through the voucher register with all purchases and is credited through the issue journal with all withdrawals. The supporting bills for the vouchers go through the regular course and must be approved by the proper persons. All goods and materials are withdrawn on requisitions properly authorized. These requisitions go to the auditor's office, are checked as to price and extensions and are entered in an issue journal, crediting the store-

room and charging the department receiving the goods. It would seem that the reconciling of the storeroom account on the general ledger would be simple, as all withdrawals are on requisition, but on account of the perishable nature of much of the stores and the amount of breakage which is not covered by requisitions, the physical inventories are usually at great variance with the book figures, and it is always difficult to overcome these discrepancies.

Auditor's Office

The general accounting offices in a hotel are usually referred to as the auditor's office. Here all transactions are verified before entry on the general books, and in a well organized office the check on all departmental activities is very thorough.

The general cashier ordinarily is in this department. He receives the daily reports from all the cashiers in the house, checks the amount of cash turned in and enters it in the general cashbook, which is provided with columns for each source of revenue. At the end of the month the totals of the various revenue accounts in the cashbook are credited to their respective revenue accounts in the operating ledger, and the total receipts are charged to the various banks in the general ledger, all receipts being deposited intact each day.

The voucher register contains columns for each department and class of expense. All bills are properly authorized for payment and are handled like vouchers in any other business.

Cheques issued in payment of vouchers should be prepared by someone other than the cashier and be entered in the cheque register in the usual manner.

Requisitions should be audited each day. They should be assembled, and a summary should be prepared of the preceding day's business, the total of which will be entered in the issue journal. This is simply a journal entry. At the end of the month the totals of the various columns of the issue journal will be charged to the departments concerned, and the total of all issues will be credited to storeroom.

It will be found that practically all hotels have income from rents, concessions, etc. These should be accrued monthly by a charge to the debtor and a credit to the particular revenue account.

Where the power plant is giving service to outsiders, this service usually will be authorized by proper contracts, and the

charges to the customers will be made monthly from the report of the chief engineer, who reports power generated and used, which, of course, can be verified by the meter records. In order to keep a check on the cost of operating the power plant, it is usual to credit the power plant with the amount of power used at a rate somewhat less than that at which it could be purchased from a power company, and this will show as a departmental revenue, but it will be offset by the operating cost of the plant, the revenue from outsiders being the actual revenue.

The payrolls require close attention, and on account of the many changes from week to week the advances on payroll are usually very large. The payrolls should be handled on a time-clock basis and, apart from the heavy advances, have no special features.

All hotels have general ledger accounts for fixed assets, equipment, furnishings, silverware, etc., and these are handled as they would be in any other line of business, with the exception of the furnishings and equipment, which are subject to heavy depreciation and consequently require generous provision for repairs and renewals.

There are many internal checks on departmental activities which are quite complex and interesting but do not come within the scope of a paper on accounting.

Accounting for Crude Petroleum Producers*

By George R. Turtle

This article is intended to deal with the activities of the two principal classes of crude petroleum companies, namely, those engaged in producing crude oil and those developing or prospecting oil lands.

The growth of the petroleum industry in America has been very rapid within the last few years, and it is now common knowledge that the crude oil is obtained from beneath the surface of the earth, sometimes in oil pockets of rock formation, but more often in a certain formation of sand and shale.

To extract or draw the crude oil from the oil pockets or oil formations it is necessary to drill to varying depths—usually from 500 feet to 3,000 feet, according to the depth of the strata or sand in the particular district. The drilling may be done by the company's own employees with the use of its own equipment or it may be done by drilling contractors for a fixed sum or for a price per foot.

For purposes of setting forth the various transactions involved in developing oil properties the following notes are based on the assumption that the company uses its own labor and equipment in development work.

Oil Property Leases

The usual custom of an oil company is to obtain a right in the form of a lease to drill or prospect for oil. The lease in most instances calls for a payment of a royalty of a certain proportion—usually one-eighth—of the oil produced.

Leases are acquired in one of the following ways:

(1) From the owner of the fee or lease for a nominal consideration with a provision for a rental to be paid for the time pending commencement of drilling operations.

(2) From the owner of the lease who has acquired it for the purpose of turning over to an incorporated company in consideration for all or a large portion of the capital stock of that company.

It will be obvious that the capitalization of values of oil lands or leases will be merely nominal or large, according to the mode

* A thesis presented at the November, 1920, examinations of the American Institute of Accountants.

of acquisition. The capitalized value will have an important bearing on the operations of the company. The effect of such capitalization is discussed briefly later in this article.

Leases

Capital expenditures under leases will consist of:

(a) Consideration paid for lease or leases.
(b) Necessary legal transfer and filing charges.
(c) Rentals paid prior to commencement of drilling operations.

In addition to the foregoing there is another important item, viz., that of "proving up" the lease. It is not an uncommon occurrence for oil companies to undertake the drilling of unproductive wells, and the writer wishes to express his opinion as to the propriety of capitalizing expenditures incurred.

When the initial well or wells prove a failure it would appear to be quite correct to capitalize the cost thereof on the theory that such expenditure was necessary to "prove up" the lease. If, however, after the company is successful in bringing in a producer (thereby proving the lease), it should again experience failure, it would appear that the cost of the dry well should be written off as a loss. As an exception to this treatment, initial wells unsuccessful by reason of water trouble, preventing the successful pumping of oil after reaching the oil sand, might justify writing off the cost of such wells as a loss.

When, after a certain time a producing well declines in production to a point at which it is no longer profitable and it is abandoned, the remaining book value of the well should be written off.

Field Improvements and Equipment

Under field improvements and equipment are included all expenditures necessary in building and grading roads; construction of buildings for housing the employees, horses, wagons, automobiles and equipment; boilers and engines; portable drilling equipment; drilling tools and equipment; storage tanks and sump-holes; pipe lines; and any other item of capital assets not strictly applicable to nor permanently a part of any well drilled or being drilled. All these charges are to be absorbed in the production cost as depletion of deposits, discussed at length later in this article.

Well Development Costs and Equipment

The expenditures for well development and equipment are those which are necessary in drilling and completing the well, such as those classified below:

1. Wells requiring use of standard rigs (timber or steel derricks):
   - a. Grading—cost of—for location of derrick.
   - b. Derrick—material (including freight) labor and expense in erecting.
   - c. Rigging—including freight.
   - d. Wages and board of drilling crew.
   - e. Wages and board of miscellaneous labor.
   - f. Supplies used and consumed.
   - g. Fuel and water.
   - h. Depreciation of boiler and engine.
   - i. Repairs and replacement of tools.
   - j. Rental of fishing tackle (used for recovering tools lost in hole).
   - k. Casing (including freight) used in well.
   - l. Cement (including freight) used in shutting off water.
   - m. Torpedoes used in shooting.
   - n. Tubing, valves, pump and fittings for pumping oil.
   - o. Superintendence, overhead, etc., and any other expenditure made in completing well.
2. Wells requiring use of star rigs and portable equipment:
   - a. All items as in previous case, exclusive of cost of derrick and rigging; but, in place thereof, a proportion of depreciation and repairs of portable equipment, together with any supplies necessary while the rig is in use on that particular well.

Expenditures made on account of non-productive initial wells, such as is discussed under the caption "Leases," should be transferred from the well development section of accounts to the lease section—the cost of which will be absorbed in the same manner as other lease expenditures.

The well development and equipment expenditures will be amortized over the production of the respective wells, as described later.

The foregoing comment deals with the treatment of the more important items of capital expenditures. It is taken for granted

that the recording of other items will be made according to the generally accepted accounting methods.

Operating and Production

Immediately upon the completion of a well and the commencement of the oil flow, the operating and production costs begin. Substantially such costs may be classified as hereunder, viz:

1. Depletion of deposits.
2. Depreciation and upkeep of field equipment.
3. Operating costs.

Probably the most important of the foregoing items is depletion of deposits.

Perhaps the shortest way to explain the method for determining the value of deposits withdrawn from the oil sands will be by use of an illustration.

Assume that a company, (a), acquires title to or lease of 100 acres of oil land, paying therefor, inclusive of recording fees, etc., $10,000.00, (b), expends for rental prior to commencing drilling operations $200.00, (c), expends on field development, such as road-work, acquiring water for drilling purposes, etc., $1,000.00, (d), expends on well development, including derrick, labor and drilling, miscellaneous supplies and expenses, casing, tubing, suction rods and sundry fittings, $8,800.00—in all a total of $20,000.00.

Assume further, (a), the number of wells which can be drilled on the lease to be 20 and, (b), the estimated total average production for each well to be 20,000 barrels.

We have, therefore, 20 wells with an estimated total production of 20,000 barrels each, or an estimated total production of 400,000 barrels for the lease. This total of 400,000 barrels represents the estimated oil reserve and, if divided into the sum of $11,200.00, will give 2 4/5 cents a barrel, the proportion of lease and field development expenditure which is to be amortized for each barrel of oil produced.

We have now to determine the amount of well development expenditure to be amortized. We obtain this by dividing the cost of well development by the number of barrels of oil which we estimate this well will produce—$8,800 ÷ 20,000—giving as a result 44 cents a barrel.

When a company is capitalized heavily and the larger portion of the capital stock is paid for the lease, a heavy charge for de-

pletion will be made to cost of production, which may and frequently does result in a cost of production greater than the market value of the product.

The question naturally arises as to the basis or method for determining the oil reserve. The following suggestions are for use until the producer is in a position to use his own production figures as a base.

1. In old territory where the logs of other producers are available the estimated oil reserve is determined by the use of the average production figures of that territory.
2. In new territory, where only a few wells have been drilled by the companies operating therein, the log or experience of the average of the producing wells should be used.
3. In new territory or "wild cat" land, there is absolutely nothing on which to base any estimate until the company has operated its own well for a certain period, and one estimate is as good as another.

After the company has been producing for some months it may use its daily and monthly production figures as its base for determining the estimated total oil reserve; and as a company usually does not make up its production and operating statement until some months after commencement of operations, it generally is not necessary for any computations as to estimated reserves to be made until certain active production figures are available. When the company is producing oil, the scientific method of computing future reserves can be ascertained from *Bulletin No. 177, Petroleum Technology 51,* issued by the department of the interior, in which the subject is well and sufficiently covered.

In estimating the total oil reserves for a lease in which only one or two wells have been completed it must be borne in mind that the tendency is to a gradual decline in initial production in all wells subsequently drilled; and when estimating the number of well locations in order to determine the total ultimate production, allowance should be made for this probable decline.

The second item entering into production costs is depreciation and upkeep of field equipment. The amount charged for depreciation really consists of two elements, viz:

a. Actual or physical depreciation.
b. Obsolescence.

For general purposes it is not considered necessary to make any distinction, and it might be advisable to write off the total expenditure for field equipment over the term of the lease, for, as the lease terminates, so also the right to drill further wells terminates. There is, however, no objection to depreciating storage tanks, pipe lines, engines, boilers and other equipment, which can be used after the termination of the lease, on the basis of useful life, provided, as is usually the case, the operator has a perpetual pumping privilege. The latter treatment should not be applied to drilling tools and equipment carried on the books, as this class of asset has practically only a scrap value at the time when the right to drill terminates.

Upkeep of field equipment should be absorbed in the operating costs for the period, excepting in the case where such upkeep is incurred in the development of wells and property. In that event a proportion applicable thereto should be capitalized.

The third item under operating and production is operating costs. These costs consist principally of wages of pumper and helper, fuel, superintendence and similar items not specified, expended in producing and caring for oil produced.

General Information

There should be available at all times certain data which are principally informative, consisting generally of the following:

1. Record of leases:
   - a. Name of property; district or field; and legal description.
   - b. Number of acres.
   - c. Name of assignor or vendor.
   - d. Royalty rate and to whom payable.
   - e. Rental to be paid, when and to whom.
   - f. Date lease or title acquired.
   - g. Date lease commenced and terminates.
   - h. Date lease renewed and terminates.
   - i. Date lease recorded.
   - j. Date lease approved by department of Indian affairs (as applied to Oklahoma).
   - k. Consideration paid; nature of consideration, whether cash, notes, property, bonds or capital stock, and amount of each.

l. Special notes or provisions.

m. Date divisional orders filed and with whom.

2. Record of wells:

a. Date of commencement of drilling.

b. Sands encountered, depth of each and feet from surface.

c. Date drilling completed.

d. Producer or dry.

e. If producer, date when put on pump or commencement of flow.

f. Quantity produced first 24 hours.

g. Quantity produced each month for first 12 months.

h. If well is abandoned, give date and cause.

i. Estimated total reserve for each well, together with revision of computation and date of revision. Basis of estimate should be given.

j. Total cost of completing each well.

k. Number of feet of casing and tubing in each well and of each size used.

3. Record of oil produced, giving quantity produced by each well and aggregate total.

This information is compiled from daily reports from the field. The gauges of all storage tanks are taken each morning at seven o'clock and the number of inches of oil in each tank is reported to the office. The office usually has in its possession a chart showing the quantity of oil for each quarter inch of each tank, from which the contents of a tank can be determined at any given time. By taking the difference in measurements from day to day, the daily production is determined, allowance being made, of course, for daily runs.

4. Any other information the state and federal governments require should also be kept in such a manner as to be readily available when required.

Accounting and Recording

The remaining part of this article will deal with the recording of the transactions discussed in the preceding paragraphs.

Generally the organization accounts and entries follow the ordinary custom and comment thereon is unnecessary.

Among the general ledger accounts will be controlling accounts for the following:

1. Leases.
2. Field development and equipment.
3. Well development and equipment.
4. Production expense.

A subsidiary ledger should contain detail of the four accounts above, sufficiently classified to give all the desired information as to expenditures. This subsidiary ledger should contain, (a), a sheet for each lease, showing all charges for cost of lease, filing, recording, etc., fees and rentals; (b), another sheet for each lease with columns headed buildings; engines and boilers; portable drilling equipment; sundry drilling tools; pumps, gauges, etc.; tanks and pipe lines; roads, sump holes, etc.; dry and water holes; (c), a sheet for each well drilled, with a column each for grading; derrick and rigging; labor and board; tools and supplies used; tools, etc., rented; depreciation of equipment; repairs to equipment; casing, tubing, rods, valves, pumps and fittings; sundries.

The voucher register and journal would have columns provided for each controlling account indicated in the foregoing paragraph and columns for selling, office and general expenses and any other controlling account found necessary. A columnar ledger sheet is suggested, in order that a sufficient classification may be made for the more important items entering into the latter class of expenses mentioned.

The regular voucher system should be put into operation, each voucher providing for classification and sub-classification of expenditures under the principal heads. Vouchers will be entered in the voucher register in the usual manner, after which they will be posted direct to the subsidiary records, number of voucher and amount of charge being entered in the appropriate columns. Cash-book and journal items affecting the controlling accounts will be posted to the subsidiary records in a similar manner.

As a general rule oil is sold as soon as a sufficient quantity has been accumulated in the storage tanks. A record should be kept to show the shipments to purchasers. This record should provide for the total shipped, the quantity representing royalty and the net shipment for which payment is to be received.

When a company commences production it usually enters into a contract with a refiner for the sale of its oil. The refiner then

constructs, if one is not already constructed, a pipe line to the producer's tanks. When the producer has a sufficient quantity of oil on hand to make a shipment or a run, as it is called, it requests the purchaser to send a man to make the run. The quantity run is determined by measurements made at the tanks by the producer's and the purchaser's men, each checking the other's figures. The man making the run gives the shipper a run ticket, which shows the tank number, measurements before and after run, temperature, gravity and total inches of oil run. A copy of this ticket goes to the purchaser, who, after making deductions for water and sand, remits monthly to the shipper a cheque for payment of his share. He also remits direct to the owner of the royalty a cheque for his share. Invariably the producer has to issue what is known as a divisional order—which is a statement of the divisional interests in the production, which, of course, include royalties. All divisional interests are liquidated direct by the purchaser of the oil, and the producer only receives payment after all royalties and other interests are deducted from the gross amount of oil sales. The company's accounts, therefore, show no entries for royalties.

Branch Accounting for Packing Industries*

By Duncan E. Pedigo

The success of the average branch of the large packing industries throughout the country depends to a great extent upon the individual effort of the local branch manager.

He must be a man who is thoroughly familiar with the packing industry and must be in position at all times to furnish his customers with particular brands of the various kinds of products handled by them. Competition is keen in this industry, and the manager must use good judgment in the selection of his products.

Prompt deliveries of perishable goods are absolutely essential. Failure on the part of the market-keeper to accept late delivery of perishable goods such as beef, pork, mutton, poultry, etc., always results in a loss of from one to five cents per pound. Especially is this true during the summer season on account of the rapid decomposition of this class of products, hauled for several hours in the summer heat and then returned to the cooler. The tainted parts must be cut away, causing a shrinkage in weight, and the balance will have to be sold at a reduced price.

The manager should make special efforts at the end of the week, if necessary, to dispose of all fresh meat on hand. Usually, new consignments are received on Monday of each week and the average buyer will insist on having either the fresh stock or a reduction in price on that carried over from the previous week. This rule does not apply so strictly to beef, which often hangs in the cooler from one to two weeks.

Purchases

Most purchases are made from one of the company's packing plants, usually the one to which the branch house is nearest. These shipments are made in the company's refrigerator cars. The invoice for contents of the car is prepared in quadruplicate—the original being retained by the plant making the shipment; the second copy sent to the home office; the third copy mailed to the branch to which the shipment is made, and the fourth copy placed in the car, to be used at the place of destination in checking the quantities.

* A thesis presented at the November, 1920, examinations of the American Institute of Accountants.

Some criticism might be made of this method of receiving, but, owing to the fact that the cooler man (known in other industries as stock clerk) is held responsible for all stock in his care, he is careful when checking incoming consignments of merchandise.

Local purchases are usually made from an imprest fund in the hands of the branch cashier or from a special fund carried in one of the local banks in the name of the manager and cashier jointly. Special bank accounts are carried only at branches where large local purchases are made. These funds are replenished once a week by the home office.

Perpetual inventory records are imperative. The stock records must show in detail every class and brand of product handled. Not only should the amount be shown in dollars and cents, but also by pieces and weight. Pieces and weight columns are to be balanced as accurately as the money columns, because weekly reports must be made to the home office showing the gross profit of the various departments, the percentage of gross profit to sales and the percentage of shrinkage. The percentage of shrinkage is affected in various ways: atmospheric conditions, kind of refrigeration used in the cooler, cutting, etc. It is essential for the manager to know how his shrinkages occur. Often he is able to discover where errors have been made in entering weights on sales tickets. Inventory shortages are often traced by the abnormal rising of shrinkage figures. If the manager's weekly reports show heavy shrinkages, he is immediately on the alert to find the source of the trouble.

Physical inventories are taken once a week, usually late in the week when the stock is at its lowest. This inventory is taken by the cooler man, assisted by someone from the accounting department, and is a comparatively simple task if the stock is properly kept. After the inventory has been taken, it is compared with the stock records, and, if any discrepancies exist, steps are immediately taken to trace the differences. After the inventory quantities have been approved as correct, they are priced and entered upon the stock records, which are then closed for the week. The figures of the various departments are summarized and entered on a weekly departmental statement.

Where large cold storage stocks, such as eggs, frozen beef and pork cuts, etc., are carried at outside storage houses, a cold storage account should be opened on the general ledger, and to this

account should be debited all goods placed in storage and credited to the regular stock accounts, warehouse receipts being taken for the merchandise placed therein. No stock should be withdrawn from storage without a signed order from the manager. When stock is taken out of cold storage, the cold storage stock account should be credited and the regular stock accounts debited. A statement of quantities should be obtained at least once a month from the warehouse and compared with the cold storage account.

Every carcass of beef, veal, mutton, etc., contained in a shipment must be accounted for individually by consignment, lot and tag numbers. These numbers are assigned by the packing house making the shipment. When the invoice is received, a distribution consignment sheet is opened, upon which is entered the lot and tag number and weight of each carcass. These sheets are held open until the entire consignment has been sold.

When a consignment of beef and mutton is received, it is usually in whole or half carcasses, many of which are later cut to fill the requirements of the daily orders. After all cuts have been sold and accounted for, the consignment sales sheet is closed and the profit or loss and shrinkage on each carcass is computed.

The stock clerk, to perform his duties efficiently, must be familiar with the different cuts and their percentages of the whole carcass, as quite often tags are lost and the percentage method must be applied as a means of finding where the posting should be made.

Sales

Each sales ticket is prepared in quadruplicate. The original is retained at the office; the second copy accompanies the delivery of the goods and is retained by the customer; the third copy is used as a means of obtaining the customer's receipt for the delivery of the merchandise and is turned over to the accounting department by the driver at the end of his day's run. They are then arranged in numerical order and compared with the original invoice for the purpose of ascertaining whether or not all deliveries were made as originally invoiced and properly receipted. The fourth copy is merely kept on file for possible call by the general office, but is very seldom used.

At the close of the day's business, all sales tickets are sorted and account must be given for all numbers. After this procedure is completed, a recapitulation of all tickets issued during the day

is made, showing the ticket number, number of pieces and amount of sale. The day's sales are then summarized upon a distribution sheet where each kind and brand of merchandise is grouped under its particular classification. The totals of the pieces, weight and money columns are then proved against the totals contained on the daily recapitulations of sales mentioned above.

The daily distribution sheets are summarized at the end of the week; and the totals for the week are entered on the weekly departmental sheet, a separate sheet being used for each department. The departments are generally as follows:

Fresh beef department.
Fresh pork department.
Smoked and dry salt meat department.
Produce department.
Canned goods department.
Pharmaceutical department.

These sheets are compiled in duplicate, the original being sent to the home office and the duplicate retained by the branch office.

Return sales should be distributed and summarized in the same manner as the sales; and these totals should be deducted from the total sales of the items affected. This should be done before posting the sales totals for the week to the departmental profit and loss statement.

Salesmen's Tonnage Reports

It is necessary that the manager be furnished a report of each salesman, showing the total of every class of product sold by him during the week. This statement should also show the gross profit on each class of merchandise sold, a statement of all expenses incurred by the salesman during the week, such as salary, entertainment, traveling expenses, etc., and the net profit or loss for the week.

Each salesman is also furnished with a copy of this statement, which serves as a means of encouragement. If his weekly statement shows a loss, it is obvious to him that such a condition cannot continue indefinitely, and naturally, he will work harder to prevent a recurrence of the same condition the following week.

Some question might be raised as to whether these statements are worth the clerical effort consumed in their preparation, but they have been found by managers to be a source of valuable information. Some salesmen may be making large sales on which

the margin of profit is very small and making no effort to sell those products upon which a much larger percentage of profit is to be made, such as canned meats, pharmaceutical products, etc.

The following operating accounts should appear on the general ledger:

Sales. One sales account is sufficient. No advantage is to be gained by carrying a separate sales account for each department, as this information is shown on the weekly reports.

Cost of Sales. The rule applies here that is given under the caption *sales.*

Auto Delivery Expense. Charge this account with wages of drivers, helpers, gasoline, accessories, repairs, garage rent, insurance, depreciation of autos, etc.

Stable Expense. Charge this account with drivers' wages, wagon repairs, horse-shoeing, stable rent, insurance, stable-keepers' wages, horse feed, depreciation of wagons, etc. This account has entirely disappeared from the books of many branches, following the introduction of motor delivery.

Salesmen's Salaries. Charge this account with salaries of all salesmen.

Salesmen's Expense. Charge this account with salesmen's traveling expenses, meals, carfare, telephone, telegraph and other items chargeable to selling expense.

Office Salaries. Charge this account with salaries of clerical assistants.

General Salaries. Charge this account with the salaries of the manager and the men who spend their entire time in the cooler.

Insurance. Charge this account with all insurance except that portion properly chargeable to delivery expense. At the end of each month before closing the books, inventory the unexpired portion and carry into the following month.

Rent. Charge this account with rent of building occupied or other rented storages.

Taxes. Charge this account with local taxes only. Federal income and profits taxes are handled by the home office.

Stationery and Postage. Charge this account with purchases of stationery, postage, etc. All stationery is furnished by the home office and is invoiced to the branch.

Heat, Light and Power. Charge this account with purchases of coal, wood, light, power, etc.

General Expense. Charge this account with sundry items for which no other account appears on the ledger, but under no condition should this account be used as a dumping ground.

Freight and Express. Charge this account with all freight and express. At the end of the period, close to cost of sales that portion applicable to incoming shipments. Deduct from sales the amount applicable to outgoing shipments.

Bad Debts. Charge this account with all losses on customers' accounts applicable to the current year, but only upon advice from the credit department of the home office.

Depreciation. Charge this account with all depreciation for period not directly chargeable to delivery expense.

Balance-sheet accounts are as follows:

Assets

Cash. Imprest funds or special funds referred to under the caption *purchases* are the only cash accounts carried in the general ledger. These accounts are reimbursed weekly by the home office for the amount of disbursements as shown by the weekly cash statement. All cash collected on accounts is deposited to the credit of the home office and charged to that account and cannot be drawn upon by the branch.

Notes Receivable. Charge this account with notes taken in payment of accounts or for merchandise.

Accounts receivable. Charge this account with all charges to customers for merchandise purchases, etc. Credit this account with returns, allowances, bad debts written off, notes taken in payment of accounts, etc.

Inventory. Charge this account with purchases, return sales at cost and freight and cartage on inbound shipments. It is not necessary to open an account with each class of inventory items, as this information appears on the weekly statement.

Property Accounts. Charge this account with purchases of buildings, furniture and fixtures, machinery and equipment, real estate, automobiles, etc. Credit this account with sales of property items at the values at which they were taken into the account, debiting or crediting the differences to profit and loss.

Salesmen's Advances. Charge this account with all advances made to salesmen for expenses. Credit this account with expense accounts rendered by salesmen.

Unexpired Insurance. Charge this account with all premiums, other than life insurance. Credit this account with absorbed premiums.

LIABILITIES

Accounts Payable. Credit this account with all purchases. Charge this account with payments to creditors, allowances made by creditors, returned purchases, etc.

Depreciation Reserve. Credit this account with total amount charged to depreciation accounts. Charge this account with total previously credited to account when making sale of property items or writing off obsolete items.

General Office Account. Credit this account with all invoices for merchandise purchases, expenses, equipment, etc., purchased from the general office or any of the packing plants. Charge this account with all cash deposited to their credit, returned purchases, overcharges, returned equipment, etc.

Many accounts ordinarily appearing on the general ledger in other businesses are not shown in the foregoing classification of general ledger accounts because most of the transactions are between the home office and the branch.

No provision has been made for the allocation of expenses to the various departments, as such procedure is not customary. Merchandise purchase and sales accounts are closed weekly, while the operating expense accounts are closed only at the end of each four weeks' period.

Distinctive Features of Cotton Goods Accounts*

By Percival F. Brundage

The accounting requirements for the manufacture and conversion of cotton goods are distinctly different from those of other manufacturing businesses.

The cotton goods industry at the present time is divided into three distinct groups: (1) cotton mills, (2) converters and (3) finishing plants. A self-contained cotton mill manufactures raw cotton into cloth. The converter purchases the cloth, ships it to a finishing plant to be bleached, dyed or printed and sells it to the trade. Most standard cloths are handled in this way. In some cases, however, cotton mills finish their own goods and sell direct to the trade or through brokers and selling agents. Furthermore, there is a tendency today for converters and selling agents to acquire cotton mills and finishing plants in order to control more surely their supply of cloth, but in such cases the threefold distinction is usually maintained through subsidiary organizations.

Cotton Mills

The accounts of a cotton mill are surprisingly simple. The office and administrative staff required to handle a business of over a million dollars a year frequently consists of an executive officer, a superintendent and three or four clerks.

Cotton is the only raw material entering into the product and this is purchased by the executive officer through brokers or a purchasing agent. In some southern mills, near the source of supply, the cotton is purchased on the ground from neighboring farmers. In such cases the grades are more uneven, as several pickings are usually mixed. The general practice, however, is to purchase from sample.

Raw cotton varies in quality according to the length of the staple or fiber and according to the grade. The longest staple is the Sea Island cotton. Next come the Delta and Egyptian cottons. These are used for the finest fabrics. Upland cotton, however, is the great American product and constitutes 70 per cent. of the world's supply. If the fiber equals or exceeds 1⅛ inches in length it is known as long staple, and if less than 1⅛ inches, short staple.

Grades of upland cotton vary four points above and four points below the standard, called middling, upon which prices are fixed.

* A thesis presented at the November, 1920, examinations of the American Institute of Accountants.

The amount of cotton on hand and under contract in any one mill is regulated by the amount of unfilled orders for cloth.

Contracts for the future delivery of cotton are recorded in an order book in which are noted the dates of the deliveries required and subsequently the quantities actually delivered. Each shipment is assigned a code symbol.

Material records of cotton are kept by individual bales and the following system has been found to be very satisfactory where practicable:

Coupon tags of three coupons each, marked respectively 1, 2 and 3, are attached to every bale of cotton purchased. Each coupon bears the code symbol of the respective shipment, the bale number and the weight. The first coupon is detached by the buyer and sent to the mill office as soon as the lot has been accepted. The coupons are there filed by bale number as a record of cotton in transit. When the bales are received at the mill the second coupon is detached and forwarded to the office, where it replaces the first coupon in the file. Bales are usually weighed when received and any difference of weight will be noted upon this coupon. Finally, when the bales are opened, the third coupon is sent to the office as a record of the consumption of that bale.

Practically all cotton is sold sight draft on bill of lading. When invoices for a shipment are received entry is made in the cotton book to record the date shipped, the code symbol, the number of bales, the total weight and the amount. Subsequently the date of receipt is noted therein and adjustment is made to cover any overages or shortages. In some mills entry is made in the cotton book only when the shipment has been actually received, but this practice fails to take into account the fact that ownership of the cotton passes at the time of shipment.

On the credit side of the cotton book is entered the daily consumption of the mill in bales and pounds as reported from the opening room.

At the end of the month the balance in bales, pounds and amount brought forward from the previous month is added to the receipts for the current month and an average unit cost per pound is obtained. This unit is applied both to the consumption for the month and to the inventory at the end.

As an alternative to this method each lot may be kept separate and the daily consumption may be recorded against the lot actually

used. Thus *actual* costs instead of averages are applied both to operations and inventories. But, inasmuch as the supply of cotton on hand usually covers only a month's operations, the first method has been found to be sufficiently accurate.

The general ledger account for cotton is charged monthly with the purchases and credited monthly with the consumption.

In an audit of a modern cotton mill it is very important to determine the relative position of the company as regards cotton commitments and unfilled orders. Enough cotton should be maintained on hand, in process and under contract to cover all unfilled orders for cloth. An excessive supply results in the company's being long of cotton and if the price of raw cotton should drop the company would be placed at a disadvantage in quoting prices for future orders. On the other hand, if all orders booked are not covered by cotton on hand and under contract the price may rise and wipe out the expected profit.

At times it may be found necessary to contract for more than immediate requirements in order to obtain the quality desired. In this case the conservative practice is to hedge by selling futures on the cotton exchange. These will be covered when sufficient orders for cloth have been received. In a similar manner if there is a shortage of proper staple or grades it may be advisable to buy futures to protect orders already booked. Trading of this nature is the legitimate function of the exchange. Dealings in futures for purely speculative purposes, however, should be carefully avoided by a manufacturer.

It may be of interest to note that this conservative practice has been generally adopted only in recent years. Previously it was a practice to buy the year's supply in the fall; and the speculation thus undertaken was the cause of nine out of ten cotton mill failures.

The manufacture of cotton cloth may be separated into three major operations: (1) preparation of the cotton, (2) spinning of the yarn, (3) weaving the cloth. The preparation of the cotton consists of opening the bales, picking (to separate the fibers), carding (to remove short fibers and dirt), drawing (to straighten out the fibers) and flying-frames (to draw out and twist the rope or sliver preparatory to the spinning). The spinning consists of a further drawing out and twisting. Between the spinning and the weaving is the warping and slashing of the warp threads to smooth

and strengthen the threads and to arrange them in proper order on the loom beam. The cloth is woven by the looms and is finally measured and inspected before bailing.

The actual weight of all cotton processed is known by the weights on the bale tags forwarded to the head office. This has been verified by weighing the individual bales when first received. It is often checked again by weighing in the opening room. The weight of the cloth is calculated by measurement, as in all constructions there are standard numbers of yards to the pound. In the intermediate stages the weight of cotton processed is estimated by the known capacity of the different machines. In this manner the number of pounds of cotton passing through each operation is recorded.

Direct labor is kept by departments and operations. Overhead is distributed in the same way, so that the unit cost of each operation is determined at the end of the cost period by dividing the total cost of each operation by the number of pounds of cotton passing through that operation.

Allowance for waste varies considerably according to the fineness of the yarn and the grades of cotton used. The actual percentage of waste is determined periodically and applied to the succeeding period. The average in the modern mill approximates 12 per cent.

Physical inventories are usually taken semi-annually. At such times the bales of raw cotton are counted and reconciled with the balance, according to the cotton book. The loose and roving cotton is weighed whenever practicable. The spinning frames and looms are commonly inventoried at half their known capacity. Bobbins of yarn are counted and the weight of the yarn thereon is averaged. Finished cloth in the cloth room is measured and baled goods are counted.

In the summarization of the inventories the stocks of cotton, yarn and cloth are all reduced to pounds and the average cotton cost for the period is applied throughout, after allowing for waste in yarn and cloth. In the average mill direct labor is applied to cotton after it has been carded, and overhead only to yarn and finished cloth. In one case known to the writer half of the labor cost of finished cloth is applied to the total weight of cotton, yarn and cloth, plus the cotton cost and 12 per cent. allowance for waste on cloth only. No overhead whatever is included.

In prorating overhead, indirect labor is applied on its percentage of direct labor in each operation; rent, local taxes, insurance, depreciation of buildings, etc., are applied on the basis of the floor space occupied; and power costs on the proportion used by the different processes. Depreciation of machines properly should be calculated by departments on the basis of the expected life of each machine. The more common basis, however, is at a fixed rate of up to $1.50 a spindle, or on a flat rate of 5 per cent. on all properties. These rates would be increased under 24-hour operation.

In pricing the inventories the costs determined during the preceding four weeks' period are commonly used.

The above procedure covers mills that manufacture only grey goods. Where the yarn is dyed the costs of the colored goods are kept separate throughout.

The selling end of the business is usually simple. A selling agent or converter, who often guarantees the accounts, contracts to purchase the total product of the mill. As soon as a sufficient stock of cloth has accumulated it is invoiced and shipped or held for shipping instructions. Working capital is absorbed in the cost of cotton and delay in the collection of accounts is, as far as possible, avoided.

The commissions paid to agents vary from one-half of 1 per cent. to 1½ per cent. for brokers and ordinary agents, and from 3 per cent. to 4 per cent. when collections are guaranteed.

In an audit of the accounts it is important to inquire into the amount of unfilled orders on hand. Special constructions are made to order and it is usual to book orders from two to four months in advance. Every mill, however, manufactures certain standard constructions for stock, especially during dull times. In periods of receding prices and general business depression, such as the present, it is important to determine also the extent to which cancelations have been received.

The general books of a cotton mill are similar to those of other business corporations and call for no special comment.

Converters

The accounts of the converter take up the grey cloth at the mills, carry it to the finishing plant and to the manufacturer, if it is to be made into sheets, pillow cases, etc., and are finally relieved by sale to the trade. Four separate material records are kept, in

addition to the record of undelivered grey cloth contracts and unfilled orders for finished goods:

(1) Grey goods held at grey mills.
(2) Grey goods at finishing plants.
(3) Finished goods at finishing plants and at manufacturers' plants.
(4) Finished goods in warehouses or in transit thereto.

Goods invoiced by the mill and not ordered shipped are entered upon the record of grey goods held at grey mills. This record is kept by mills and the contract number, construction, bale numbers, yards and amounts are given. The total of this record agrees with a controlling account in the general ledger.

If the grey goods are sold direct to customers no further stock records are necessary. If they are ordered to a finishing plant, a lot sheet is made out in duplicate for each shipment and the original is sent to the finishing plant as instructions to process the lot, while the duplicate is retained as a record of goods at finishing plants. On the lot sheets are given the lot number, the name of the grey mill, the grey contract number, the construction of the cloth, the finishing contract number, the total grey yards, the individual bale numbers and yardages and any special finishing instructions required. The duplicate copies of the lot sheets are filed by finishing plants according to lot sheet number.

When the lot of grey goods is received by the finishing plant the converter is advised of this fact, as well as of any shortages that may have been found. Record of the receipt is immediately made upon the duplicate lot sheet.

Whenever a portion of a lot is finished the finishing plant advises the converter of the lot number and the new bale numbers and yardages of the finished cloth. These returns are recorded upon the back of the lot sheet. When the complete lot has been finished the total yards returned are compared with the yards sent, to determine if the proper gain has resulted. Except in a few styles, such as piqué, etc., a gain in yardages arises through the fact that the goods are stretched in the processing. This gain is in part offset by a shrinkage in width of from half an inch to two inches. It is further reduced by the fact that the pieces of cloth are sewn together in an endless strip prior to processing and when cut apart the ends are wasted. A real gain, however, results, and it will be found to vary from 1 per cent. for heavy ducks to 8 per

cent. for light sheeting. The converter knows from experience the gain to be expected and holds the finishing plant to full accountability if it is not realized.

The finishing plants as a rule measure the goods only after processing and base their finishing charges on this measurement. If, however, the proper gain is not realized the grey yards are measured and if shortages are found the balance of the shipment is held in the grey for further instructions from the converter.

The question of gain in finishing is of considerable importance to the converter. His margin of profit is usually small and he counts on the gain practically to pay the finishing charges. Constant vigilance is therefore maintained to see that full yardage is returned.

At the time when record of the returns is made upon the back of the lot sheet, the finished stock records are charged with the finished yardage. The records of finished stock are kept by finishing plants and constructions. The cloth may be held for a time at the finished plant or may be shipped direct to customers or to warehouses for storage. Finishing plants are sometimes instructed under standing orders from large customers to ship direct to them as soon as part of a lot is finished. Charge to the customer is then made direct from the return on the lot sheet. For shipments to warehouses finished stock at finishing plants is credited and the account goods in storage is charged.

With bleached goods to be manufactured into sheets, pillow cases, handkerchiefs, etc., two lot sheets are necessary, one to cover the bleaching and the other the manufacture. Both processes may be performed at the same plant or at different plants. The manufacturing lot sheet is made out on the same form and in the same way as the finishing lot sheet. In manufacturing, however, there is always a loss and the returns on the lots are watched to see that the contract allowance has not been exceeded.

All remnants at both the manufacturer's and the finishing plant are the property of the converter. Damaged goods are subject to claim by the converter.

Attempt has been made to control the grey goods at finishing plants and the finished goods at finishing plants and manufacturers' by separate general ledger accounts. The labor involved, however, is out of proportion to the information gained and the usual practice is to maintain one general converting account in the

general ledger to which are charged all grey goods ordered to finishing plants. This account is credited with the grey cost of sales to the trade or may be left to accumulate until inventory time. Finishing charges, freight, insurance, handling, etc., are charged to separate accounts.

The general accounts of a converter are similar to those of any commission merchant and do not call for special comment.

Because of goods at all times in transit to finishing plants, manufacturers and warehouses, an efficient traffic department is required. This department should take care of all claims for shortage and tracers for delayed shipments, etc.

An insurance department is equally essential to maintain adequate protection over the constantly fluctuating stocks at finishing plants and elsewhere.

In auditing the books of a converting house the proper control of the merchandise stocks is the most important factor to be considered. The correctness of the records can be confirmed by the mills and finishing plants, and physical stock can be taken in the warehouses. Tracers should be produced by the traffic department for all missing shipments.

The pricing of the inventories is very simple if adequate cost records are maintained. Unit prices are on a yardage basis throughout. Grey goods are valued at actual cost plus freight to the finishing plant. The unit cost of the finished yards is determined by totaling the grey cost, freight and finishing charges and dividing the total by the number of finished yards. For partly completed lots the finished yards are estimated on the basis of previous experience.

Care must be exercised to take up full liability for finishing charges on uncompleted lots, inasmuch as finishing plants usually bill for completed lots only. The correct method is to reserve for the total returned yardage on uncompleted lots at the contract price and to deduct any bills rendered on account.

It is a good practice to compare the total amount of grey and finished goods on hand and under contract with the amount of unfilled orders to determine the proportion covered by orders already booked.

Finishing Plants

The operations of a finishing plant consist of bleaching, dyeing, printing and finishing goods belonging to others. Grey goods are

sometimes purchased outright to be finished and sold to the trade, but this is not the primary function of the plant.

The care devoted to the keeping of detailed stock records varies considerably as between plants. The lot sheets received from the converting house are the principal records. Receipts are noted thereon and record is made of goods finished and shipped. In some cases it has been found cheaper to pay claims for shortage than to maintain an expensive accounting force to trace differences.

Physical inventories are commonly taken semi-annually or at the specific request of converters.

The general accounts of a finishing plant do not contain any unusual features that require comment.

Receivership Accounting*

By Morris J. Root

Financial embarrassments are numerous at the present time. They are a post-bellum result of wild speculation and war finance. Because of these conditions, the subject of receivership accounting has a timely and increasing interest for the accountant.

R. J. Bennett in his text-book *Corporation Accounting* defines a receiver as "an officer of the court appointed to take charge, custody, control and management of a plant, property or business, to hold and operate or sell out to the best advantage." The receiver, as court representative, takes the property away from the corporation, puts it out of the reach of creditors and places it in such a position as to be secure both from the mismanagement of officers and directors and the incursions of creditors.

Receiverships have often been attacked as a serious invasion by the courts of the rights of private management of private property; and a brief statement of the justification for the so-called invasion perhaps would not be out of place.

Most businesses are today engaged in manufacturing, mining or transportation. These businesses are organized and conducted with properties and implements which are highly specialized and consequently cannot be utilized and are unavailing for any other purpose. To illustrate, take the business of transportation. A railroad consists of narrow strips of land thousands of miles in length, terminals, locomotives, rails, spikes and cars. It is not in the category of a store building or of a farm or of general merchandise, which can easily change hands or be shifted from one type of business to another. "The property of a railroad can be used for no other purpose than the transportation of passengers and commodities." If it is desired to sell this property, it must be sold to another railroad company, for then only will it have more than mere salvage value. Furthermore, the property being a coördinated unit, "no part of it can be separated from the others and sold without destroying a large part of its value." Now, if receiverships were to be eliminated and the creditors of the company permitted to enforce their respective liens, what would be the consequence? The property of the railroad would be pieced,

* A thesis presented at the November, 1920, examinations of the American Institute of Accountants.

the equipment would be hauled off, the terminals taken from it, the organization would be virtually destroyed, the franchises perhaps lost and its entire earning power reduced to nothing. It is evident, therefore, that the property would be completely disintegrated in the contest of creditors. Each set of creditors would make off with a piece of the corpus, and the value of the property, after it had been thus rent, would have a distant relationship to its value as a going concern.

A receivership is an extraordinary remedy for an extraordinary condition. Like a surgical operation, it serves to save the life of a distressed corporation, but it leaves the patient in a weakened condition from which recovery is admittedly slow. It is, however, absolutely necessary in order to prevent the complete destruction of the business and to conserve the value of the company's property. Essentially, it is a measure intended to protect in every respect the rights of all parties concerned.

There are two kinds of receivers: receivers in equity and receivers in bankruptcy. Since the purposes of their appointment and their particular functions are different, it is desirable that a clear line of demarcation be drawn between these two officers of practically the same court.

In bankruptcy, whether voluntary or involuntary, the purpose of appointing a receiver is to preserve temporarily the property until a trustee is elected. The receiver's powers are limited and his tenure of office is brief. He takes possession of all the property of the bankrupt with the expectation of its ultimate disposal and with the understanding that the amounts realized shall be applied to the liquidation of the bankrupt's debts. If the owner makes a voluntary application, there is seldom a need for the appointment of a receiver. The creditors come together and proceed immediately to the election of a trustee. It is the duty of the trustee to take charge of the entire property, to turn it into cash as quickly and advantageously as possible and to apply the proceeds to the liquidation of the claims against it.

In involuntary proceedings, a petition is filed in the federal courts in the judicial district in which is the bankrupt's business. The bankrupt is served with a copy of the petition and given usually about three weeks in which to file his reply. The court will not appoint a receiver unless one of the following conditions exist.

a. A suit by creditors having a lien, mortgage or judgment, there being imminent danger of the property being lost, wasted or misapplied.

b. A suit by stockholders, when there is fraud and mismanagement on the part of some of the stockholders.

c. In foreclosure proceedings, to prevent the disintegration of the property concerned.

d. In dissolution proceedings to protect the interests of all parties.

The receiver, having been duly appointed, is given charge of the property until the election of a trustee. This is usually done at the first meeting of creditors, held thirty days after the owner or the corporation has been adjudged bankrupt by the court.

The purpose of appointing a receiver in equity is to continue the business, frequently as a preliminary step to reorganization. The receiver in equity usually takes only a part of the property and uses it in whatever way seems best for the liquidation of the more pressing current claims of creditors. A condition of insolvency does not necessarily exist. The liquid assets may not be sufficient to meet the maturing obligations; the management may have permitted a tie-up in its current resources; the business may be financially embarrassed—but even these contingencies do not necessarily point to the insolvency of the firm. Its total assets, more or less in unrealizable form, really may exceed the total liabilities; yet, the business cannot pay its pressing obligations and it therefore becomes necessary to turn over the property to a representative of the owner and his creditors, appointed by a court of equity, for the purpose of satisfying the more urgent and insistent claims and for the purpose of preserving the property from needless dissipation.

The powers and liabilities of receivers may be considered together, because with every responsibility and power there comes a corresponding duty or obligation. The order of the court appointing a receiver and all other orders that emanate from the court will determine to a large extent the duties and responsibilities of the receiver. These orders are also the first matter of interest to the accountant. He should be fully acquainted with them. They are the instructions by which both the receiver and the accountant are guided, and the former particularly must see to it that he follows out the instructions in every detail.

Upon his appointment, the receiver takes title to the personal property. All real estate must be conveyed to him. He may institute suit to recover assets belonging to the firm. On the other hand, no suit can be brought against him without the permission of court. He has been called the executive hand of the court and, as such, unwarranted interference with his work may amount to contempt of court. The receiver may compromise claims, sell assets and promote reorganization. However, express authority from court is absolutly essential for the undertaking of any new business. Under his general authority, he takes all the books of the corporation, he manages and operates, and his acts will be enforced by court unless they are proven fraudulent.

To execute his duties, the receiver requires funds. Usually two sources are available for obtaining these necessary funds. First, there is access to the excess of operating income over operating expenses; second, receiver's certificates may be issued. These are evidences of debt, issued only upon specific authority from court. They are prior claims, taking precedence over all existing debts. The receiver may continue or refuse to continue existing contracts and leases. If he decides to continue them, all debts created as a result of such continuation become preferred claims and the receiver must use the income from his operations first for the liquidation of these claims. Receivers often manage so unskilfully that upon completion of their work there is very little left for the creditors. In such cases there is no redress, unless the receiver has acted fraudulently or is proven guilty of gross negligence. Should the receiver do anything of an important nature without authority of court, he is personally liable for any loss resulting from such act. He is, however, not to be held for any lack of ability or business talent—the courts have erred in their appointment.

Turning to the question under consideration, accounting for receiverships, we find many plans and schemes in actual practice. Every receiver displays his personality in the methods pursued; and his knowledge or ignorance of accounts will determine to a large extent the system in vogue. For instance, some use single entry; others, double entry. Some take all the assets and liabilities into account; others consider the assets and the liabilities only as the claims are proved and allowed. Some take the assets at book valuation; others, at appraised or receiver's valuation. Some

use the subsidiary records of the company and continue the bookkeeping as before. The general practice, however, seems to be to open a separate set of records for the receiver wherein all the official transactions are recorded. The rule of keeping a careful record of all the cash receipts and disbursements is followed invariably by all.

The accounting for receivers may be simple or complex, according to circumstances. There is no prescribed method or system for keeping the accounts of a receiver. The accountant enlists his personal judgment in outlining the system and manner of keeping the books. One thing is certain and unvarying. The records must fulfill their designated purpose. The receiver was entrusted with property; accordingly he must render a full accounting of his stewardship, and the records must thoroughly, concisely and clearly set forth all his activities.

The subject under consideration can be subdivided and discussed under five headings, following each other in natural sequence, and all involving specific but kindred principles of accounting. They are:

1. The entries made when opening the books of a receiver.
2. The recording of transactions during the receiver's administration.
3. The entries made at the settlement of the estate and when closing the books of the receiver.
4. The intermediary and final reports of the receiver.
5. The company's records during the receivership and the adjustment of the accounts at the beginning and the end of the receivership.

The subject will be discussed in the manner outlined.

With the order of the court before him, the accountant makes a prompt and expeditious audit of the asset accounts. The principles of a balance-sheet audit are applicable at this point. It is necessary to take a physical inventory of the merchandise on hand; outstanding cheques should be added to the bank balance; accruals calculated; depreciation charged off; all the necessary reserves created—in short, the entire procedure is similar to the work done at a normal conclusion of a fiscal period.

Having established the condition of the asset accounts and their respective reserves at the date of the receivership, the receiver's books can be opened. A charge is made upon the re-

ceiver's ledger to the various asset accounts. A credit is made to the various reserves belonging to the accounts and a credit for the net balance is posted to an account called "Estate of John Doe, in receivership," or "The X. Y. Z. Corporation, in receivership." The opening entry would appear as follows:

Cash	$200.00	
Accounts receivable	5,000.00	
Inventory	45,000.00	
Machinery and fixtures	15,000.00	
Reserve for bad debts		$500.00
Reserve for depreciation, machinery and fixtures ...		3,000.00
Estate of John Doe, in receivership		61,700.00

To record book value of assets taken over by order of court.

The various accounts as entered must be properly classified. The principles of classification of accounts are as applicable to the ledger of a receiver as to the ledger of any prosperous concern. If any of the asset items taken over have liens against them, proper notation of these liens should be made on the accounts. But all liabilities are for the present completely disregarded. At this stage of the work, one is bound to meet the difficulty of determining the status of merchandise ordered and shipped prior to the financial embarrassment of the business, but received by the receiver after his appointment. The shipper, had he known of the receivership, could have stopped the goods in transit. However, the merchandise has arrived and the receiver may accept it. What should its status be? Is the shipper an unsecured creditor or is the debt an obligation against the receiver payable at one hundred per cent.? In point of equity the receiver should accept only goods which he intends to use during his administration. In that case, the invoice for the merchandise should be fully paid and charged as an operating cost of the receivership.

In considering the next division of the subject, the recording of transactions during the period of receivership, we are met with nothing new in principle. Care must be taken at all times to keep a complete record of all transactions. The receiver will often be ordered by court to pay some of the claims existing prior to his appointment. Preferred items, such as wages, rent and taxes, will also be paid upon order of court. Certain expenses are incurred

by the receiver and they must be met. Assets will be sold and funds realized therefrom. In addition there will be the general income from the usual and continued operation of the business. In regard to all the above, two considerations must be taken into account. Briefly stated they are: (a) there must be a complete record of every act of the receiver; (b) an ample and clear distinction should be drawn between payments made on account of obligations existing prior to the receivership and disbursements made for the receiver's own transactions. This latter point causes a great deal of trouble. It is difficult to make fine distinctions. There is a great deal of overlapping of the two classes of payments; questions of priority are continually presenting themselves for solution; and the receiver must act cautiously and deliberately, obtaining the advice of counsel or consent of court upon all moot questions.

The receiver should close his books periodically, the closing period agreeing with the regular fiscal period of the business. Uniformity in the accounting and continuity of the records should always be the aim. This is desirable for comparative purposes, so that prospective purchasers of the business property or prospective financiers may be readily presented with uniform statistical records, showing clearly and definitely the results of operation for prior years and for the period of the receivership.

The receiver's closing entries will depend upon the nature of the termination of the receivership. After operating for a time, and having shaped things into order, the receiver may be ordered by court to sell the residue of the estate and liquidate the entire business. Or a reorganization may take place without any foreclosure proceedings. Again, very often, it may be advisable to go through foreclosure proceedings, to be followed by reorganization and recapitalization.

In any of the above cases, the receiver first closes his books and adjusts his ledger accounts in order to determine the final status of the estate. He opens a profit and loss account and shows the results of his operation, connecting these results with a financial statement. Having established the net book value of the assets on hand, he will proceed to liquidate, if it is so ordered by court. This involves the preparation of realization and liquidation accounts, showing the receipts of cash from the sale of assets, disbursements for all expenditures, payments of all claims in their

respective order, i. e., preferred claims, first. Any balance remaining as a result of the liquidation will go to the proprietors or stockholders of the business.

When a reorganization takes place without foreclosure, the receiver returns the property to the reorganized company, after deducting the necessary funds for the settlement of all outstanding receiver's obligations. The entries upon his books are the reverse of those made at the opening of the books. He charges the "Estate of John Doe, in receivership," and credits the asset accounts that he is returning.

If, as is often the case, foreclosure proceedings have been ordered by court, these proceedings to be followed by reorganization, the receiver's acts and entries upon the books will be regulated by the orders of the court. All property sold will be delivered by the receiver to the purchasers, and the receiver will charge himself with the funds received and credit the proper asset account. As part of the reorganization plan, the purchasers by agreement with the various creditors and lien holders will often assume all liabilities, pay off dissenting bondholders and provide the funds necessary for financing the reorganization. The receiver, though acquainted with all the terms of the settlement, is not much interested in the details of the reorganization plan. Upon his books are shown only the sales of assets, proceeds from such sales, disposition of funds and form of settlement of the outstanding obligations. He closes everything by a transfer of all the open accounts into the "Estate of John Doe, in receivership," account.

In considering the question of intermediary and final reports for a receiver, the accountant will be guided by the desires of counsel for the receiver. There is no standardized form for these reports, as each case brings out its own peculiarities. The receiver may make periodic reports or submit only a "first and final account," depending upon the nature of the case, the amount involved, the duration of the receivership and other factors. One thought must be predominant in the preparation of these reports. They must not be mere accumulations of figures, unintelligible and purposeless schedules and exhibits, but rather clear, concise, non-technical, convincing presentations and explanations of the receiver's undertaking, his operations and the results thereof.

The first report will show schedules of inventories and properties taken over, carefully divided and analyzed as to their forms

(liquid or fixed), location and whether pledged or free. It will also show all the liens on the property. The receiver will also prepare schedules of all the creditors as shown by the books. These claims are to be classified under the respective headings of preferential claims—such as taxes, wages and rent—fully secured and partly secured creditors with details as to the nature and amount of security, all unsecured creditors and contingent liabilities.

After the first report and as the receiver is progressing in his work, he will submit, from time to time, intermediary reports. Quoting from H. C. Freeman's article on *Accounting for Receiverships* in the October, 1917, issue of THE JOURNAL OF ACCOUNTANCY:

> The objects to be served in the preparation of these reports are: (a) to demonstrate the extent to which the liquidation of the property taken over has proceeded; (b) to indicate the changes which have occurred in the status of the property; (c) to show the results of the operation of the property by the receiver; (d) to enable the court to appraise the value of the services of the receiver. All these purposes to a substantial extent can be accomplished by the presentation of accounts in the form known as an account charge and discharge. The receiver charges himself with:
>
> (1) The assets at the date of the receivership (or at the date of the last report), exclusive of permanent or fixed assets;
> (2) Additions to such assets since discovered;
> (3) Increments upon realization of such assets;
> (4) Amounts realized from the sale of permanent or fixed assets;
> (5) Amounts realized from the sale of receiver's certificates;
> (6) Increases in the amounts of receiver's liabilities;
> (7) Gross income from the operation of the property.
>
> The receiver credits himself with:
>
> (1) Preferred or other liabilities of the company paid;
> (2) Decreases in the assets stated as taken over at the date of the receivership;
> (3) Losses on realization of such assets;
> (4) Expenditures on permanent or fixed assets;
> (5) Receiver's certificates repaid;
> (6) Decreases in the amount of receiver's liabilities;
> (7) Interest charges paid;
> (8) Expenses of operation of the property;
> (9) Receivership expenses;
> (10) The assets at the close of the period covered by the report, exclusive of permanent or fixed assets.

The report should also contain comparative balance-sheets, showing conditions at the time of the previous report and conditions now. In addition, it may contain a profit and loss account and a summary of the cash transactions.

Before the court authorizes any payment or distribution of funds, an auditor is appointed by court to audit and examine the

receiver's accounts and to pass upon all claims submitted. The auditor places an advertisement in the newspapers, giving public notice of his appointment and orders the filing of all claims. These claims are first reconciled with the books of the company and passed on to the auditor for final approval.

The final report of the receiver is a summary and complete accounting of his stewardship. It outlines what property is to be returned to the business, the amounts of the unpaid obligations, the results of the receiver's operations, etc. This report, chiefly a résumé of the receivership, helps the court to a large extent to determine the amount of remuneration due to the receiver for his services. The compensation is usually either a fixed percentage of receipts or disbursements of cash or a round sum, depending upon the volume of the work, the time spent and the responsibility involved.

The last topic for consideration is the method of handling the books of the financially embarrassed company during the period of the receivership. These books may be adjusted to meet the new conditions or abandoned until reorganization takes place. The most desirable plan is to keep them in harmony with the receiver's books as to all interrelated matters. When the property is turned over to the receiver, an account is opened with him on the general ledger as "A. B. receiver." This account is charged with every asset turned over and credited with every reserve for the particular asset.

During administration by the receiver, all liabilities prior to the receivership paid by the receiver are recorded by a credit to the receiver's account and a charge to the respective liability account. The books must continue to show all recurring liabilities such as interest, rentals and all other obligations not assumed by the receiver himself.

Upon the termination of the receivership, the plans of the reorganization having been formulated and completed, the company's books will be adjusted to show exactly what has occurred. The assets returned by the receiver are charged upon the books and credited to the receiver's account. The profits and losses that resulted from the receivership are reflected by a debit or credit to the receiver's account. All claims and liabilities allowed by the court auditor are entered upon the books as obligations of the business and, if incurred by the receiver, are charged to his

account. The net balance of the receiver's account will show the net worth of the company. In most cases, the capital accounts will have undergone certain changes as a result of the reorganization. These must be entered in the books. The old capital, surplus or proprietorship accounts are closed and the new capitalization is recorded, in accordance with the figures and plans prepared and executed by the committee on reorganization.

In conclusion, it may not be amiss to digress a little from the specific subject under consideration and express the writer's amazement at the apathy prevailing in the ranks of the professional accountants to the consistent and systematic refusal of the courts to recognize the accounting profession in their appointments of receivers. It is indeed to be regretted that many of these appointments have gone to personal and political friends as plums, and they who are best fitted to handle this kind of work have been flatly disregarded and ignored. The advantages of appointing accountants as receivers of large enterprises have long been openly appreciated and recognized in England and in Scotland. Skilled in accounts, familiar with commercial law and usage and acquainted with business of almost every description, it would seem that the accountant is particularly fitted and adapted to the intelligent handling of the complicated tasks of receivers. Our courts have failed to adopt this point of view and many a receivership, because of incompetent administration, has netted only enough to pay the receiver's fees and expenses.

It is to be hoped that the near future will bring with it a better understanding of the status of the accountancy profession in this country and a reform in the selection and appointment of receivers.

The Journal of Accountancy

Official Organ of the American Institute of Accountants

A. P. RICHARDSON Editor

EDITORIAL

Where the Dollar Goes

What becomes of the dollar we pay in federal taxes?

Most of us grumble and most of us pay, but few of us know why we pay or for what we pay. Yet it is salutary to know such things. The man or corporation or nation which stumbles blindly along without knowledge of financial position and the causes of it is likely to come to grief. It is well to know even the worst.

THE JOURNAL OF ACCOUNTANCY is primarily concerned with all that makes for fiscal health. For that reason, and with utter disregard of political inference or implication, we present a statement of the destination of the dollar of federal taxation. The bald facts are sufficiently eloquent. They seem to us so significant that we have it in mind to carry them at the head of these editorial pages for several months to the end that the readers of this magazine may not forget.

According to the federal appropriations for 1921—and this year differs little from its immediate predecessors—

OF THE DOLLAR OF TAXATION THE GOVERNMENT USES

To pay for past wars	*Ta pay for present defense*	*To pay for all other governmental activities*
68 cents	20 cents	12 cents

Concerning Ourselves

This April number of THE JOURNAL OF ACCOUNTANCY is something of a jubilee publication, for it marks the homecoming of the magazine and the unification of all the interests of the American Institute of Accountants under one roof in the institute's own building. This consummation has been in the minds of many leaders of the profession for years past and now that at last it is a fact there is cause for hearty rejoicing among all the mem-

bers of the great national organization—and we believe that there is also cause for rejoicing by the constantly increasing numbers of readers of THE JOURNAL OF ACCOUNTANCY.

At such a time it is a pleasant and honorable custom to indulge in autobiographical reminiscence. When good things have been accomplished it is pardonable to take pride in them. Furthermore it seems to be a characteristic of publishers to take a more than usual pride in their productions. All these reasons and some more, beside are the instigation of these few notes concerning ourselves.

In 1903, when public accountancy was merely an infant, certain wise men came to the conclusion that the profession needed an official mouthpiece. There had been a few attempts to establish accounting magazines but none had been an unqualified success, and it had become evident to many accountants that a magazine worthy to represent the profession could be produced only by the united effort of a large group of men interested in the progress of accounting.

Accordingly a corporation known as the Accountancy Publishing Company was formed, and, with apparent disregard of the unlikelihood of financial return from their investment, accountants in many parts of the country subscribed the preferred stock of the company. The common stock was held chiefly by the American Association of Public Accountants.

The company thereupon began the publication of THE JOURNAL OF ACCOUNTANCY, a magazine similar in appearance to the present number. Accountants came generously to the support of the magazine and articles of great importance and value were contributed without thought of compensation.

The welcome accorded to the new magazine was cordial but not general. It did not pay expenses and a deficit, which the American Association of Public Accountants was compelled to make up, occurred with striking regularity at the end of each year. In such circumstances it was not to be expected that the circulation would increase rapidly. The funds available were insufficient for a general campaign of publicity. The editorial and business direction of THE JOURNAL was a matter of secondary importance to those at the head of affairs. In a word, the magazine was asked to run itself. The marvel is that during those early days the quality of material supplied to readers remained high. It is not marvelous that the financial results were deplorable.

At last matters reached a crisis. The funds of the publishing company were exhausted, it became necessary to pass the hat for funds to make up a deficit of something over $3,000 and there was a fear that further efforts to obtain assistance might be futile.

The time had come, however, when the magazine had so established itself that with a small amount of intelligent effort the expense of production should have been equaled by the revenue. Every new periodical publication goes through a time of establishing when the outgo exceeds the income. That is the period in which the heavy mortality occurs. Those that survive the early years generally endure.

At the end of 1911 it seemed wise to dissolve the Accountancy Publishing Company, transfer ownership of the magazine to the American Association of Public Accountants and engage a publishing company to undertake the business management under supervision of the association.

In fulfilment of the plan the association entered into a contract with the Ronald Press Company of New York to publish the magazine for five years, with an option of renewal of contract for a further five years under certain conditions.

The editorial control was assumed by the association. By the joint efforts of the American Association and the publishing company the circulation of the magazine was stimulated and although the progress was not rapid it was substantial. When the American Association assumed ownership the circulation was about 1,400. Today it exceeds 15,000 a month.

In 1911 the American Association of Public Accountants was a somewhat loosely organized body with limited resources, and it did not seem wise to burden it with the responsibility for the detail of business management. Today, however, the situation is quite different and the American Institute of Accountants, successor to the American Association of Public Accountants, is so well organized, so firmly established in reputation and financial strength, that it is manifestly better that all the institute's activities should be centralized.

With this thought in mind the American Institute of Accountants at its last annual meeting resolved that at the termination of the contract in 1922 the institute should take over THE JOURNAL OF ACCOUNTANCY and give the magazine the benefit of direct and united control.

When the action of the institute became known the publishing company expressed a wish to terminate the contract at once. This proposal met with the approval of the executive committee of the institute and negotiations led to a decision to make the change of management beginning with the April issue.

For some time past the magazine has been the victim of irregularity in date of publication and the institute has been almost powerless to prevent such a condition because of the division of control. This number is to be placed in the mails not later than April 11th. The May number is to appear on the first day of the month, and thereafter the date of publication is to be the first unless that day falls on Sunday or a public holiday.

We believe that this summary of our history will be of interest to many of our readers who may not have understood the facts. From today we assume full responsibility for all shortcomings, we promise ourselves great things for the future and, with these few remarks concerning ourselves, we lay down the pen of the autobiographer and trust that the balance of praise due will emanate from our friends.

Income-tax Department

EDITED BY STEPHEN G. RUSK

Solicitor-general Frierson, in arguing before the supreme court in the cases of *Brewster versus Walsh* and *Goodrich versus Edwards,* laid down rules for determining gains or losses on sales of property acquired prior to March 1, 1913, as follows:

(a) There is a taxable profit only when the selling price is greater than cost.
(b) When value on March 1, 1913, is greater than cost, the taxable profit is the difference between such value and the selling profit.
(c) If value on March 1, 1913, is less than cost, the taxable profit is the difference between cost and selling price.
(d) There is a deductible loss only when the selling price is less than cost:
  (1) If value on March 1, 1913, is greater than the cost the deductible loss is the difference between such value and the selling price;
  (2) If value on March 1, 1913, is less than cost, the deductible loss is the difference between cost and selling price.

The department has not made a ruling as yet in conformity with the above rules, and they cannot, therefore, be accepted as final, but these rules are so sensible that it seems probable that the department will not hesitate to adopt them.

It will be remembered that in the Brewster case one of the premises cited before the court was that the complainant had purchased certain stock prior to March 1, 1913, and sold it subsequent thereto at the same price at which it had been purchased; but, as the value on March 1, 1913, was less than cost, the department of internal revenue had claimed there was a taxable profit of the difference between the selling price and the value on March 1, 1913.

Treasury decision 3125 contains a finding of the United States circuit court of appeals for the sixth circuit which has important bearing on the question of depreciation.

There were no other treasury decisions of any general interest during the month elapsed before going to press, but there were several instructive office decisions which are set forth below.

TREASURY RULING

(T. D. 3125, February 2, 1921)

Corporation excise tax—Deduction—Depreciation—Decision in court.

1. DEDUCTION—DEPRECIATION—LOSS IN VALUE OF ROADBED OF RAILROAD.

   No deduction for depreciation in value of the roadway of a railroad may be taken where, because of repairs, renewals, and replacements, the roadway as a whole is as valuable at the end of the taxable year as at the beginning.

2. DEDUCTIONS—DEPRECIATION.

   The depreciation which may be deducted in determining net income is the decrease in intrinsic value due to wear and tear, decay, obsolescence, etc., of the physical property suffered during the taxable year as distinguished from the market value.

3. DEDUCTION—DEPRECIATION—LOSS IN VALUE OF SEPARATE UNITS—APPRECIATION OF OTHER UNITS.

The roadway must be considered as a whole in determining whether depreciation has been sustained, and the loss in value of separate units of the roadway may be offset by appreciation in other units.

4. EVIDENCE—SUFFICIENCY OF REPAIRS, RENEWALS, AND REPLACEMENTS TO OFFSET DEPRECIATION.

There was sufficient evidence that the repairs, renewals, and replacements made offset any loss in value, and the roadway had not decreased in value, to justify the trial court in refusing to direct a verdict.

5. RES JUDICATA—LAW OF THE CASE—FORMER APPEAL.

The decision of this court upon points raised on the former appeal (249 Fed., 678; T. D. 2697) is adhered to.

The appended decision of the United States circuit court of appeals for the sixth circuit, in the case of *Nashville, Chattanooga & St. Louis Railway Co. v. United States,* is published for the information of internal revenue officers and others concerned.

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SIXTH CIRCUIT.

Nashville, Chattanooga & St. Louis Railway Co., plaintiff in error, v. United States, defendant in error.

[December 7, 1920.]

Before KNAPPEN, DENISON and DONAHUE, circuit judges.

KNAPPEN, circuit judge: This case is before this court a second time. In substance it is this: In June, 1916, the United States, under the direction of its commissioner of internal revenue, brought suit to recover from defendant an excise tax of 1 per cent. claimed to be due from it for each of the years 1909 and 1910, under section 38 of the revenue act of August 5, 1909 (36 Stat., 11, 112, ch. 6), which makes every corporation to which it applies "subject to pay annually" a special excise tax of 1 per cent. on its net income, to be determined by deducting from gross income, among other things, operating expenses, losses sustained, "including a reasonable allowance for depreciation of property," interest on indebtedness, and taxes. The declaration alleged the filing by defendant with the commissioner of internal revenue, on February 25, 1910, and February 21, 1911, respectively, of returns of its net income for the respective years 1909 and 1910; that both returns were incorrect as to the amount of defendant's income, that for 1909, in that it included, as an item of deduction from gross income, an alleged charge of $26,000 to expenses, which was not a necessary expense actually paid out of income in the maintenance and operation of its business and properties; those for both years, in that they included charges to depreciation of roadway amounting to $249,024.54 for the year 1909 and $239,229.70 for the year 1910, which were not charged against the capital valuation of the roadway on its books and were not reasonable allowances for depreciation of roadway within the meaning of the act; that the three items named were disallowed by the commissioner of internal revenue and held by him to be incorrectly charged; and that they were in fact not correct and proper deductions from gross income, and that the total amounts so deducted, which should have been included as net income in said returns, were for the year 1909 $275,024.54 and for 1910 $239,229.70; that the defendant was thus indebted to the United States and subject to pay income tax of 1 per cent. upon the amounts stated; that it had failed and refused to make payment and that the alleged taxes were thus due from defendant and payable by it to the United States.

The railway company demurred to the declaration upon grounds, so far as now important (a) that the government could not recover an excise tax in advance of an assessment by the commissioner of internal revenue, and (b) that the railway company, having made its returns and paid the

assessments made by the commissioner, could be made subject to no further obligation unless the commissioner should discover some item to be false within three years from March 1 of the year succeeding the calendar year for which the return is made. The trial court sustained the demurrer. This court reversed that action, and remanded the case for further proceedings and trial (249 Fed., 678). The railway company then pleaded nil debet to each of the two counts of the declaration, together with special pleas to each count, raising the identical questions which had before been presented by its demurrer to the government's declaration. The government's demurrers to these special pleas were sustained by the district court, on the authority of this court's decision. Upon trial by jury there were verdict and judgment against the railway company for $5,142.50, being 1 per cent. upon the amount of the three items in question. This writ is to review that judgment.

1. Upon the present hearing counsel for the railway company in support of its special pleas, overruled below, has again argued at great length the questions presented to and considered by this court under defendant's demurrer to the government's declaration. All of these questions, which relate equally to the special pleas, were, upon careful consideration, decided by this court against defendant's contention. It is unnecessary here to repeat the grounds of that decision, which sufficiently appear from our published opinion (249 Fed., 678). The argument now advanced sheds no additional light upon the subject. We content ourselves with saying that we find no reason to depart from our former conclusions. The assignments of errors numbered 1 to 5, inclusive, are accordingly overruled.

2. The remaining assignments relate to the refusal to direct verdict for defendant, to the charge as given, and to the refusal of certain of defendant's requested instructions. A consideration of the criticisms relating to the charge will aid in determining whether there was a case for the jury.

Defendant conceded on the trial that the deduction of the $26,000 item in its return for 1909 was not authorized. The court accordingly properly instructed that the government was entitled to a verdict for at least $260.00 on this account. The substance of the charge otherwise was that the question of fact to be determined was merely whether the deductions made by defendant in its excise tax reports for the years 1909 and 1910, viz, $249,024.54 for the former year, and $239,229.70 for the latter year, were in whole or in part reasonable allowances for depreciation of roadway during those respective years; that if such allowances were reasonable the government is not entitled to recover; that if they were not reasonable the government was entitled to verdict for 1 per cent. of the amounts improperly deducted. The jury was specifically instructed to consider, first, "the depreciation, either physical or functional, in the value of those parts of the roadway which have not been repaired or renewed or replaced," and, second, "what has been the effect of the repairs, renewals and replacements that have been made to other parts, and determine whether, after you strike a final balance at the end of the year, the roadway is of greater or less value, or of equal value, than or to that which it was at the beginning of the year;" and that if it should be found "that the value of the roadway, its actual value, is as great at the end of the year, after these repairs and replacements have been made for which credit has been given as an expense deduction, then there is no depreciation in value of * * * the roadway, within the meaning of the statute;" but that "if after making such repairs, replacements and renewals in the different units of the roadway it should be found that some parts have been made more valuable by the putting in of new parts in place of worn-out parts, yet the depreciation in the rest of the roadway, in the deterioration, obsolescence, etc., of other units which have not been changed, and so little done in repairing and replacing that at the end of the year, taking it as a whole, the depreciation in value has exceeded the repairs, replacements and renewals, so that it is

worth less than it was * * * to that extent the railway is entitled to a deduction of 1 per cent."

The first specific criticism to the charge is that depreciation was made to depend upon the relative value of the roadway "in dollars and cents" at the beginning and end of the respective years. The contention is that the criterion is "earning power," "value for use," not its value to an investor. In point of fact, the court did not use the expression "dollars and cents" in its charge to the jury. Its various expressions were "value," "net value," "actual value," "real value," doubtless meaning intrinsic value, value in "dollars and cents" as distinguished from market value, which defendant's testimony showed might be affected by considerations other than intrinsic value.

The criticism is without merit. Not only is it clear that market value was not meant, but the criticism loses all point through the specific admission of defendant's counsel made upon the trial, that "the road as a whole, for the purpose of carrying on the business of a common carrier, was just as valuable at the end of the year as at the beginning," and by the equally expréss admission of defendant's chief engineer, not only to the same effect as that of counsel, but, further, that it would be worth as much to "any persons that wanted to buy it for a railroad."

The further criticism is made that "the court refused to permit the jury to consider depreciation, physical or functional, in the units constituting roadway, track, and structures," the argument being that "a railroad is a composite property, it is impossible to figure depreciation of a road as a whole without first considering depreciation of the units."

The court, however, did not instruct that depreciation of units could not be considered in determining the ultimate question whether there was not depreciation in the roadway as a whole. It is true that after stating that there would be no depreciation if repairs, renewals, and replacements had placed the roadway in the same value as at the beginning of the year, it was said: "In that sense you should not consider each of the individual units that enter into the roadway." But the meaning of that statement was made clear by the paragraph immediately following: "It was not intended to have a system of bookkeeping with reference to each particular crosstie or each particular rail, but you should look to the value of the roadway as a whole, comparing its value at the beginning of the year with its value at the end of the year." Further evidence of the meaning of the charge appears from the later use of the term "net value;" also by the earlier reference to the making of repairs, renewals, and replacements in the roadway by "taking out units that had decayed or whose usefulness was at an end and putting in others; taking out crossties, decayed crossties, worthless crossties and putting in new crossties, taking out rails worn out and putting in new rails; repairing and replacing different units in its roadway system from time to time;" as well as by the instruction that the jury should consider "depreciation, either physical or functional, in the value of those parts of the roadway which have not been repaired or renewed or replaced, then also consider what has been the effect of the repairs, renewals, and replacements that have been made to other parts, and determine whether after you strike a final balance at the end of the year the roadway is of greater or less value, or of equal value, than or to that which it was at the beginning of the year."

The contention on which defendant seems to rest its chief criticism seems to be that notwithstanding the roadway as a whole was intrinsically just as valuable at the end of the year as at the beginning of the year, that is to say, although depreciation in given units had been fully overcome by appreciation in others, the railway company would still be entitled to credit for depreciation in such individual units as had depreciated. We think this contention of defendant not sustained by reason or authority, and that the court correctly charged the true criterion. If, as is not entirely

clear, it is meant to further suggest that the consideration of functional (as distinguished from physical) depreciation was not allowed by the charge to be taken into account, the suggestion is plainly without merit. Not only did the court define the roadway as including "structures connected with the roadway, such as stations, tool houses and matters of that sort," but it included in depreciation a lessening of original value "due to wear and tear, decay, gradual decline from obsolescence, that is, getting out of date, and inadequacy." In our opinion the jury was given the correct rule for determining the existence or nonexistence of depreciation, which accords with the "ordinary and usual sense" of that term "as understood by business men."—*Van Baumbach v. Sargent Land Co.* (242 U. S., 503, 524). To say that property can depreciate without impairment of either intrinsic value or efficiency is to our minds a solecism.

3. *The refusal to direct verdict.*—The sole question in this regard is whether or not there was substantial testimony tending to support the government's contention that there was during the years 1909 and 1910 no net depreciation in the intrinsic value of the roadway and structures considered as a unit. It is not highly important to the determination of this question whether the controversy arose on one theory and was tried on another, nor whether the claimed depreciation would have been allowed under the system of bookkeeping employed by the government had the charges therefor been set up on the railway company's books (249 Fed., 686).

It appears that defendant arrived at the depreciation charges by estimating the value of the perishable structures as one-third the cost of the road (less equipment and real estate), and then taking 3 per cent. of this one-third value, on the theory that the average life of the various perishable elements was 33⅓ years. Whether or not these depreciation estimates were reasonable was a question for the jury.

In our opinion there was substantial testimony tending to support the government's contention. It appeared that there was expended in round numbers for maintenance of way and structures; that is to say, for repairs, renewals, and replacements for the year 1909, $1,600,000, and for the year 1910, $1,554,000, and that no substantial part of these sums was carried in defendant's accounting as additions and betterments. It was admitted by defendant's chief engineer that the expenditures for 1909 "kept the road in normal condition to carry on its business," that "its normal condition was a good condition," and that the expenditures "had made good the normal amount of depreciation." There was testimony by competent witnesses of railway experience that "there may be depreciation in the units comprising the roadway, track, and structures of the railroad, while there is no depreciation in the machine as a whole;" also that it is possible "to maintain the roadway, track, and structures so that there will be no depreciation if we consider the roadway, track, and structures as a composite whole;" also that "the service life of any normally operated and normally and well maintained railroad is perpetual, and it is maintained in the condition of property serving its purpose by annual renewals and replacements." The testimony, considered as a whole, tended to support the conclusion that the amounts expended by defendant during the years in question for repairs, renewals, and replacements should and would have fully offset the depreciation in the various units, and that the defendant's railway and structures were, as a whole, maintained throughout the years in question in fully as good condition, and were of fully as great intrinsic value, as at the beginning of the respective years. The jury would have been clearly justified in inferring from the testimony of defendant's chief engineer, taken as a whole, that the value of the roadway had not depreciated during the two years in question; in other words, that the repairs and renewals that had been made were of such a character as to leave the road at the end of each year of value equal to that at the beginning of the

year. That officer's testimony so impressed the trial judge, who stated his opinion from the evidence that "there is no reasonable deduction for depreciation established." Defendant did not directly controvert the situation so shown. Its chief, if not its only, reliance seems to have been on the proposition that in spite of it all there was inevitable annual depreciation in some of the perishable elements not entirely renewed or replaced, so justifying the contention that for this reason there was depreciation within the meaning of the act, even though the roadway as a whole had not decreased in value. To this argument, as already said, we can not assent. It follows that the trial judge rightfully refused to instruct verdict for defendant.

OFFICE DECISIONS

SECTION 212, ARTICLE 22: Computation of net income. O. D. 803

The following rates have been accepted by the bureau of internal revenue as the current or market rates of exchange prevailing as of December 31, 1920:

London	3.535	(dollars to £ sterling).
Australia	3.55	(dollars to £ sterling).
New Zealand	3.55	(dollars to £ sterling).
Paris	.0590	(cents to franc).
Belgium	.0622	(cents to franc).
Milan	.0347	(cents to lira).
Zurich	.1528	(cents to franc).
Madrid	.1355	(cents to peseta).
Stockholm	.20	(cents to krone).
Christiania	.1535	(cents to krone).
Copenhagen	.1535	(cents to krone).
Amsterdam	.3145	(cents to guilder).
Buenos Aires	.7510	(cents to peso).
Montevideo	.7462	(cents to centavo).
Colombia:		
Bogota	.8620	(Colombian cents to dollars).
Barranquila	.8474	(Colombian cents to dollars).
Cartagena	.8474	(Colombian cents to dollars).
Medellin	.8474	(Colombian cents to dollars).
Lima	4.42	(dollars to Peruvian £).
Bolivia	.277	(cents to bolivianos).
Mexico City	.4925	(cents to peso).
Yokohama	.48	(cents to yen).
Calcutta	.265	(cents to rupee).
Singapore	.42	(cents to Singapore dollars).
Dutch E. Indies	.3145	(cents to florin).
Germany	.01365	(cents to mark).
Poland	.0016	(cents to mark).
Austria	.0024	(cents to krone).
Czecho-Slovakia	.0115	(cents to krone).
Jugo-Slavia	.007	(cents to krone).
Greece	.074	(cents to drachma).
Roumania	.0126	(cents to leu).
Bulgaria	.0115	(cents to lev).
Serbia	.0274	(cents to dinar).
Finland	.032	(cents to markka).
Canada	.86	(cents to Canadian dollar).

SECTION 214(a) 1, ARTICLE 101: Business expenses. O. D. 805

(Also section 215, article 293.)

In addition to his salary as an employee, a taxpayer receives sundry amounts from various periodicals for articles contributed by him. His activities in this respect are sufficiently frequent to constitute his writing a

business. Held, that the expenses incurred for information services, magazines, stationery, and supplies used in connection with the production of the articles referred to may be deducted as a business expense, but the cost of books is held to be a capital expense and as such not deductible. There may be taken as a deduction an amount representing depreciation on books, typewriter, furniture, and other equipment of a permanent character in proportion to their use in connection with the production of such articles, providing, however, that no other deduction in respect thereof has been or is being claimed in a return.

In accordance with article 292 of regulations 45, as amended by treasury decision 3101, it is held that when trips are made for the express purpose of securing facts for an article, there may be deducted from gross income the reasonable and necessary traveling expenses, including railroad fares, as well as expenses for meals and lodging in an amount in excess of any expenditures ordinarily required for such purposes when at home.

SECTION 219, ARTICLE 343: Decedent's estate during administration. O. D. 807

In February, 1919, A contracted for the sale of certain land receiving x dollars in cash, the balance of $11x$ dollars to be paid in April, 1919.

A died before April, 1919, and the contract was not completed until August or September of that year, when the deed was passed and possession taken by the purchaser. The question arises as to whether any gain was realized either by A or by his estate.

Since the x dollars received by A prior to his death was mere earnest money to bind the contract, he did not receive taxable income from the transaction, inasmuch as the contract was not consummated during his life.

No taxable gain was realized by the estate because of the transaction. Although the legal title to the land vested in the executor for purposes of administration, the substantial thing that went to the executor was the right under the contract to the unpaid balance of the purchase price in trust for the devisees. It is the value of this right of contract and not the value of the land that should be considered. The basis for determining the gain or loss upon the sale or conversion of property acquired by bequest, devise, or descent, is the value of the property at the death of the testator, or its value as at March 1, 1913, if acquired prior thereto. As the right or contract was in this case valued for federal estate tax purposes for $11x$ dollars, which was the amount received by the estate, there could be no gain or loss to the estate. (O. D. 631; 33-20-1134 modified.)

SECTION 219, ARTICLE 347: Estates and trusts which can not be treated as a unit. O. D. 808

Under a will a trust was created for the period of A's life, a part of the income of which is to be paid to a charitable institution and an educational institution and the remainder to A. At the termination of the trust the property is bequeathed to the charitable and educational institutions. A portion of the trust property was shares of stock. In 1919, the right was given to shareholders to subscribe to additional shares of this stock which right was sold by the trustee.

Held, that the amount received by the trustee from the sale of the right is taxable income, the imposition of the tax not being affected by the fact that the ultimate beneficiaries may be a charitable and an educational institution.

Held further, that the trust can not be treated as a unit for income tax purposes, there being income distributable periodically and also income (according to federal income tax statutes and regulations) which is not distributable periodically under the law of the state in which the testator resided. The amount received from the sale of the right to subscribe for stock is income according to federal income-tax statutes, and under the state

law the profit from the sale of the right goes to the remainderman as against the life tenant.

The trustee should file form 1040 returning as income the amount received from the sale of the right which is not distributable periodically and also form 1041 showing the distributive shares of the beneficiaries in that portion of the trust income which is distributable periodically.

SECTION 326, ARTICLE 836: Tangible property paid in; value in excess of par value of stock. O. D. 813

The M Company was organized subsequent to 1919. Soon thereafter it acquired all the capital stock of the N Company by issuing to the stockholders of the N Company its own stock in an amount equal to the par value of their shares of stock. The M Company thereupon by merger absorbed the N Company and became the owner of all the property of the N Company, which consisted of real estate, buildings, machinery and equipment, stock on hand, and work in process. This property had been purchased by the N Company in the same year at a bargain, as shown by an appraisal made of the property about the time it was taken over by the M Company.

Held, that the company could not include in its invested capital as paid-in surplus the excess of the value of the property over the purchase price paid therefor. Any excess resulted from a successful bargain and is not paid-in surplus. Paid-in surplus as used in section 326 of the revenue act of 1918 does not mean the excess value of property purchased in a bona fide sale over the purchase price thereof. To constitute paid-in surplus of a corporation there must, in effect, be a gift to the corporation.

SECTION 212, ARTICLE 25: Accounting period. A. R. R. 391

The committee has had under consideration the appeal of the M Company from the action of the income-tax unit holding that the corporation is liable to file income and profits tax returns on the basis of fiscal years ending October 31, 1918, and 1919, instead of upon the calendar year basis.

It appears from the records in the case that the M Company was organized in July, 1917, as the successor to a corporation of the same name whose fiscal year ended on October 31 of each year. The new corporation adopted such fiscal year as its own and took exact inventories and closed its books on October 31 of each year, which inventories were carried forward as a running book inventory so that figures were available as of the first of each month.

The M Company now states:

> The new corporation on its organization did not request the permission of the department to file upon a fiscal year, and accordingly returns were filed for 1917 and 1918 upon the basis of a calendar year. In preparing the return for the calendar year 1919, however, the company secured the assistance of a firm of accountants who advised them that under the act of 1918 the return should be filed upon a fiscal year, and at their suggestion a letter (dated April 15, 1920) was prepared and sent to the department requesting permission to file for a fiscal year ending October 31. This permission was granted, and accordingly an amended return for the year ending October 31, 1928, was prepared and filed, and a return for the year ending October 31, 1919, was filed.

The company now contends that the accountants were in error in advising it to file returns on the basis of a fiscal year ending October 31; that its original returns were properly filed on the calendar year basis and should be accepted. The corporation frankly states that during November and December of 1918 it suffered a large loss, that during the first 10 months of 1919 it made very large profits, and if its tax is to be determined on the basis of a fiscal year ending October 31 a peculiar hardship to the company will result.

The records further show that in July, 1919 the corporation adopted a new set of by-laws which included the following:

> ARTICLE X. Fiscal year.—The fiscal year of the corporation shall begin on January first and end on December thirty-first in each year.

This case is similar to that covered by committee recommendation 342 except that in the latter the taxpayer changed its accounting period from a fiscal year to calendar year basis prior to the passage of the revenue act of 1918, and closed its books on the latter basis. As has been shown, the M Company did not make such change until July, 1919, subsequent to the passage of the said act.

What was stated in recommendation 342 relative to returns filed on a calendar year basis for years prior to 1918 applies with equal force to the return filed on a calendar year basis for the year 1917 by the M Company. Since, however, that company did not change its accounting period prior to the passage of the revenue act of 1918, and did not formally close its books as of December 31, 1918, it did not fix an annual accounting period on the basis of a calendar year in accordance with the requirements of article 25, regulations 45. As stated in that article:

> A taxpayer having an existing accounting period which is a fiscal year within the meaning of the statute not only needs no permission to make his return on the basis of such a taxable year, but is required to do so, regardless of the former basis of rendering returns.

From date of organization up to July, 1919, the fiscal year of the M Company is established by its by-laws closed on October 31 of each year, exact inventories were taken, and the company's books were formally closed as of that date. No request for permission to change from a fiscal year to a calendar year basis was made by the corporation prior to July 6, 1920, and therefore the committee recommends that the original return filed by the company on a calendar year basis for 1917 be accepted, and that returns to cover the period subsequent to December 31, 1917, be accepted only when filed on the basis of fiscal years ended October 31.

SECTION 213(a), ARTICLE 48: Improvements by lessees — M. 2714
(Also section 214(a) 1, article 109.)
(Also section 214(a) 8, article 164.)

INCOME TO LESSOR FROM IMPROVEMENTS ERECTED BY THE LESSEE UPON LEASED GROUND.

Treasury decision 3062, dated September 1, 1920, dealing with the question of the realization of income by a lessor from the erection by the lessee of improvements on leased ground, has been the subject of many inquiries. It is deemed advisable, therefore, to state the reasons for its promulgation and to demonstrate the proper construction of it by application to a specific case.

On February 6, 1917, by treasury decision 2442, the bureau held that where, under the terms of a rental or lease contract, a tenant agrees to erect a building or other permanent improvement, upon the freehold of another, the building or improvements become a part of the realty, and the difference between the cost of the improvements and the allowable depreciation during the lease term is gain or profit to the lessor at the end of the lease term and is to be accounted for as income at that time.

The ruling contained in treasury decision 2442 was adhered to by the bureau and was embodied, with some minor changes, in regulations 33, revised, article 4, paragraph 50, and in regulations 45, article 48. The bureau abandoned this ruling only when forced to do so by the courts. In the case of *Miller v. Gearin*, 258 Fed. 225, the circuit court of appeals for the ninth circuit held that the value of improvements erected upon leased ground by a lessee is not income to the lessor *at the expiration of the term*

of the lease. A writ of certiorari was sought from the supreme court but was denied. Following this decision came the case of *Cryan v. Wardell,* 263 Fed. 248, reaching the same conclusion. In both of these decisions it is held that the value of improvements erected on leased ground by a lessee is not income of the lessor at the termination of the period of the lease, and it is stated, obiter dictum, that the income, if any, is realized when the buildings or improvements are erected and title passes to the lessor. In *Miller v. Gearin,* supra, the court said:

> The lessor acquired nothing in 1916 (the year of the termination of the lease) save the possession of that which for many years had been her own. It was not a gain but a loss. Assuming that the building was income derived from the use of the property we think it clear that the time when it was "derived" was the time when the completed building was added to the real estate and enhanced its value.

And in *Cryan v. Wardell,* supra, it is stated:

> The right to levy the tax turns upon the question: When did title to this building vest in plaintiff and become a part of her property for the purpose of taxation? I am of opinion that under well-settled principles, aptly expressed in section 1013, civil code of California, the moment the building was erected, which the terms of the lease show was to become and remain an integral portion of the land upon which it was constructed, the title thereto vested as completely in plaintiff as though constructed by the plaintiff herself. * * *. It, therefore, became, upon the completion, a part and parcel of plaintiff's income-bearing property, and was subject to taxation in her as of that date.

As a result of these decisions, the office modified its prior rulings on the subject, and T. D. 3062 was accordingly promulgated.

The adoption in T. D. 3062 of the view occasioned by the above-cited decisions, that the value of improvements erected on leased ground by the lessee is income to the lessor upon the passage of title, raised the further question as to the measure of the income to be returned by the lessor.

Although the lessor has acquired title to the improvements upon their erection by the lessee, yet it is obvious that the lessor has not received their full value, as measured by an unrestricted dominion over them, inasmuch as his proprietorship is subject to the exclusive right of the lessee to their possession and use during the term of the lease. In recognition of this point it is held in T. D. 3062, that the lessor must include in gross income for the year in which title passes the depreciated value of the improvements —that is, he includes in gross income the estimated present value to him of the improvements, the possession and enjoyment of which is postponed until the termination of the period of the lease. To compute this depreciated value, the value of the land free from the lease without the improvements is subtracted from the value of the land subject to the lease and with the improvements. Inasmuch as the lessor has included in income only the depreciated value of the improvements, in effect taking his depreciation deductions in advance, he is entitled to no depreciation deduction with respect to such improvements until the expiration of the term of the lease when he gains the possession.

The following example is given to illustrate the proper construction to be given to T. D. 3062:

A, in 1915, leases certain land to B for 20 years. B agrees, in part consideration for the lease, to erect on the leased ground a building, specifications agreed upon, of an estimated life of 25 years and to cost $50,000, which building is not to be subject to removal by B. The building is completed in 1920.

A realizes income in 1920, the year in which title to the building passes. The measure of the income is the present value to A of the building, of an estimated life of 25 years and cost of $50,000, the use and enjoyment of

which is postponed for 15 years. The depreciated value of the building at the termination of the period of the lease will be approximately $20,000—that is, cost less depreciation sustained. The income of A, then, is the discounted value of $20,000 receivable at the end of 15 years. If market value reflects intrinsic value, this amount should equal the difference between the value of the land free from the lease without the buildings and the value of the land subject to the lease with the building. However, any other evidence available should be considered in determining this present worth to the taxpayer of the legal title to the encumbered building. Since A has included in income only the depreciated value of the building, he is entitled to a depreciation deduction with respect to such building only for the years after the termination of the period of the lease when A has come into possession. This depreciation deduction to which A is entitled for 1935 and subsequent years should be computed on a basis of the estimated remaining life of the building and a "cost" value equal to the market value placed on the encumbered building by A in the year of its erection, i. e., the annual depreciation deduction for 1935 and subsequent years will be the quotient obtained by dividing (a) the value of the improvements to A as determined by him when the same completed became part of the realty, by (b) the number of years in the estimated remaining life of the improvements from the termination of the lease.

In any case in which the term of the lease is greater than the estimated life of the improvement no income should be accounted for by the lessor at the time of the passage of title. Also if the improvements will have no value at the termination of the lease, as is often the case in mining leases, no income is realized by the lessor.

SECTION 214(a) 8, ARTICLE 163: Depreciation of intangible property. — O. D. 818

In the case of liquor dealers the useful life of whose intangibles such as good will, trade-marks and trade brands, was definitely limited as a result of prohibition legislation, an allowance for obsolescence is permissible. However, in the case of dealers who continued in a similar trade or business, the useful life of such intangibles is not definitely limited, although the profits may have been reduced. Therefore, liquor dealers who continued in a similar trade or business can not obtain a deduction under section 214(a) 8 on account of obsolescence of their good will, trade-marks and trade brands.

SECTION 326, ARTICLE 841: Surplus and undivided profits: limitation of additions to surplus account. — A. R. R. 394

Recommended that a corporation which issued bonds at a discount in January, 1900, and elected then to charge such discount to profit and loss for the year of issue and the next two succeeding years, may not now revise its accounts and file amended returns for the purpose of reinstating to invested capital the unexpired portion of such discount and claiming as a deduction from income that portion applicable to each year.

It appears from the records that the M Company issued bonds on January 1, 1900, to the amount of $70x$ dollars at a discount of $7x$ dollars and charged such discount to profit and loss in 1900, 1901, and 1902.

The accountants writing in behalf of the corporation stated that it was their understanding that for the purpose of computing net income the case was covered by article 544(3) (a) of regulations 45. The M Company in its appeal contends, in effect, that it did not follow good accounting practice in charging off the discount in question to profit and loss during the years 1900, 1901, and 1902; that recognized accounting authorities, some of whom are named and quoted, hold that discount on bonds issued should be spread over the term of the bonds and the installments thereof charged against income each year, and that, under article 544, it did not

have an option of treating all of such discount as interest expense at the date of issuance of the bonds.

Article 544(3) (a) of regulations 45, reads:

> If bonds are issued by a corporation at a discount, the net amount of such discount is deductible as interest and should be prorated or amortized over the life of the bonds.

The unit, in its reply of June 30, 1920, contended that article 544(3) (a) must be considered in connection with article 841, which latter article, bearing the caption "Surplus and undivided profits: limitation of additions to surplus account," provides, in part, that deductions which have been taken from income and which are as a matter of good accounting to some extent optional, such as experimental expenses, patent litigation, development of good will through advertising or otherwise, can not be reinstated in surplus, as in such cases it is considered that the corporation has exercised a binding option in deducting such expenses from income, and an election of this sort which was made concurrently with the transaction can not now be revised and amended returns in respect thereto can not be accepted.

The solicitor of internal revenue, in a memorandum dated May 13, 1919, commenting on a ruling in a case similar to the one under consideration, stated:

> It appears that the corporation in this case had an option as to the method it would adopt in handling entries of the discount on the bonds which it issued. Two methods were available:
>
> First. To treat the discount as interest paid in advance to be amortized over the life of the bonds.
>
> Second. To charge the discount as a loss in its profit and loss account.
>
> The corporation exercised its option by adopting the second method. It did so apparently to lessen its income for the year the transaction took place. It now seeks to adopt the first method and desires to amend its 1917 return accordingly. The effect of this procedure would be that the discount item would be taken from the losses (profit and loss account), thus diminishing the losses and thereby increasing its surplus account, and indirectly its invested capital.
>
> Where a corporation has exercised an option as to accounting practice and such option was concurrent with the transaction, amended returns are not permissible. See article 841 of regulations 45.

While the committee is in accord with the contention of the M Company that it did not follow the more generally approved accounting method in charging off the discount on its bonds of January 1, 1900, as it did, that fact alone does not entitle it now to adopt another method and adjust its accounts for the purpose of filing amended income and profits tax returns. There were at the time said bonds were issued no income-tax regulations prescribing a method to be followed in the treatment of bond discount. It was entirely optional with the taxpayer as to the method it would adopt in handling entries of discount on bonds issued, and inasmuch as that option was exercised at the time the bonds were issued a different method of accounting can not now, in the opinion of the committee, be adopted for tax purposes, which opinion is sustained by the decision in the case of the *C. & A. Railroad v. United States Court of Claims* (see article 149, regulations 33, revised, issued under the provisions of the revenue act of 1916, as amended by the revenue act of 1917).

The committee, therefore, recommends that the ruling of the unit be sustained.

Students' Department

EDITED BY H. A. FINNEY

AMERICAN INSTITUTE EXAMINATIONS, NOVEMBER, 1920

In regard to the following attempt to present the correct solutions to the questions asked in the examination held by the American Institute of Accountants in November, 1920, the reader is cautioned against accepting the solutions as official. They have not been seen by the examiners—still less endorsed by them.

COMMERCIAL LAW

ANSWERED BY JOHN C. TEEVAN*

NEGOTIABLE INSTRUMENTS

Answer three of the following four questions:

1. Is the following a negotiable instrument?

Boston, Mass., July 1, 1920. One year after date, for value received, the Y. Z. corporation promises to pay to the order of Adam Brown three thousand dollars with interest at the office of the Y. Z. corporation, Boston, Mass., or, at the option of the holder hereof, upon the surrender of this note to issue to the holder hereof in lieu thereof thirty shares of the preferred stock of said Y. Z. corporation and to pay to the holder hereof in cash the interest then due upon said sum. The Y. Z. corporation, by Y. Z., President.

Answer:

This instrument is a negotiable promissory note. It is an unconditional promise to pay a sum certain in money at a fixed future time to the payee's order. The inclusion of a promise to issue stock to the holder of the note, at his option, in lieu of the sum of three thousand dollars with interest, does not prevent the maker's promise from being construed as being a promise to pay a sum certain in money. The option is with the holder, not the maker. This point is directly covered by section 5 of the negotiable instruments law which provides that "the negotiable character of an instrument is not affected by a provision . . . which gives the holder an election to require something to be done in lieu of payment in money." Nor does the fact that the payment of interest is promised, and no rate stipulated, render the sum uncertain. Section 2 of the negotiable instruments law states that "the sum payable is a sum certain . . . although it is to be paid with interest." In the absence of a stipulated rate the legal rate of interest applies.

2. What is the effect of endorsement of a negotiable instrument
   (a) by an infant?
   (b) without consideration, by a corporation?

Answer:

(a) Section 22 of the negotiable instruments law provides that the endorsement of a negotiable instrument by an infant passes the property

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therein, i. e., passes the title to the transferee or endorsee. Such endorsee has the right to enforce payment from all parties prior to the infant endorser. In other words the prior parties cannot avail themselves of the incapacity of the infant. But the infant's endorsee is not a bona fide holder as against the infant. The latter may disaffirm (as he may any contract except for necessaries) and thereafter there can be no recovery by his endorsee or any subsequent endorsee. Payment by the maker to the endorsee does not protect the maker. Once the infant has disaffirmed he may recover on the instrument. Briefly, the endorsement of an infant passes title, but the infant may disaffirm.

(b) The endorsee gets a good title to the instrument, but the corporation incurs no liability thereon as an endorser. Section 22 of the negotiable instruments law provides that "the endorsement . . . of the instrument by a corporation . . . passes the property therein, notwithstanding that from want of capacity the corporation . . . may incur no liability thereon."

3. A sold his automobile to B, warranting it to be a 1918 model in good mechanical condition. B gave A his note in payment of the purchase price, of which note C became the holder in due course. B, after a few days, found that the automobile was a 1917 model and in such defective condition that its actual value was but a small proportion of the purchase price paid by him, of all of which X had knowledge. X subsequently purchased the note from C. Could he enforce the note against B?

Answer:

X derived his title to the note from C, who was a holder in due course. Assuming that X was not a party to the fraud practised by A on B, the maker, his (X's) knowledge of the fraud is immaterial. X takes the same title as his transferor, C, had. C being a holder in due course, A's fraud could not be raised as a defense by B against C. X, being the transferee of C, stands exactly in the same position as C and can enforce payment of the note by B. This point is covered by section 58 of the negotiable instruments law.

4. How may a "qualified endorsement" be made and what is the effect of such an endorsement?

Answer:

A qualified endorsement is made by adding the words "without recourse" to the signature of the endorser. This qualification has no effect on the negotiability of the instrument, and so the instrument may be negotiated subsequently with the same freedom as though not so endorsed. The contract of a qualified endorser is covered by section 65 of the negotiable instruments law, under which such endorser warrants (1) that the instrument is genuine; (2) that he has a good title to the instrument; (3) the capacity of all prior parties; and (4) that he knows of nothing which would impair the validity of the instrument or render it valueless. Thus, for example, he does not warrant that the maker is solvent, but if the maker were an infant or otherwise incapacitated he would be liable under warranty number 3.

CONTRACTS

Answer both the following questions:

5. A entered into the following agreement with the R. S. Cement Company:

> "Memorandum of agreement made this 6th day of July, 1905, between A, first party, and R. S. Cement Company, second party, to wit, first party agrees to give the 'R. S.' brand cement the preference in his sales of cement for the year 1905, and in consideration thereof, second party agrees to sell said brand of cement to the first party during the year 1905 at the price of 95 cents a bbl. f. o. b. Haverstraw, New York."

A ordered several shipments of cement which were duly delivered and paid for. Subsequently the market price for cement rose and the cement company notified A that it would furnish no more cement under the agreement. A then purchased his cement elsewhere during the remainder of the year at higher market prices, and he sought to recover from the cement company as damages the difference between the cost of the cement purchased by him at the prevailing market price and what the cement would have cost at the price provided in the agreement. Could he recover?

Answer:

A cannot recover. This agreement is void, and so without legal effect, on three grounds: (1) A's promise is uncertain and indefinite. No limit is placed on the amount of cement that A might order during the year. Nor is there any method provided for in the agreement by which the quantity can be made certain. (2) The agreement lacks mutuality. A is not bound thereunder to sell to his customers or order from the company any cement, but the R. S. Cement Co. is bound to sell to A. The rule is that both parties to a contract must be bound, or neither is bound. (3) There is no consideration on the part of A. He is under no obligation to purchase any cement from the company and has therefore sustained no legal detriment.

6. Define
   (1) a joint contract.
   (2) a joint and several contract, and point out the rights of the respective parties under each.

Answer:

(1) A joint contract is one in which a promise is made by two or more promisors, who, by the provisions of the contract, are jointly bound to carry out such promise, or one in which a promise is made to two or more promisees who are jointly, but not severally, entitled to require performance of such promise. In the case of the failure of joint promisors to fulfill their joint obligation, the promisee must sue them all jointly. If the promisee releases one joint promisor, he thereby releases all the other joint promisors. If one joint promisor dies, the liability survives to the surviving joint promisor or promisors. In the case of a breach of a promise made to joint promisees, such joint promisees must sue the promisor jointly. They cannot bring separate suits against him. If one joint promisee dies, the right of action is in the survivors.

(2) A joint and several contract is one by which, not only all the promisors are liable together or jointly, but each promisor is liable severally. In other words, the promisee in a joint and several contract may choose to hold all the promisors jointly bound to fulfill their obligations to

him or may choose to hold any one of the promisors individually liable. A contract cannot be joint and several as to the promisees.

The foregoing are the common law rules and have been greatly modified by statute in the various states.

Corporations

Answer both the following questions:

7. In what circumstances are directors of a corporation authorized to declare dividends, and what are the liabilities of directors for declaring an unauthorized dividend?

Answer:

The authority of the directors to declare dividends is subject to the provisions, if any, in the charter or by-laws of the corporation regulating this matter and is subject further to any existing statutory provisions. Subject to such provisions, and in any event, the directors may declare dividends only out of net profits or surplus. Ordinarily and in the absence of such restrictions as above indicated, the directors have a large discretionary power as to whether they will or will not declare dividends. If such discretionary power is exercised in good faith, the courts will only in the most exceptional cases compel a declaration of dividends at the request of the stockholders.

If there are no profits or surplus, or if the corporation is insolvent, a declaration of dividends by the directors is illegal, and the directors would thereby render themselves personally liable to the creditors of the corporation to the extent to which the capital stock is thereby impaired. In some states, such action on the part of the directors would also render them guilty of a misdemeanor and subject to fine or imprisonment or both.

8. The X corporation owns certain personal property of which B has wrongfully taken possession. A owns all of the stock of the X corporation and brings in his own name an action to recover the property from B. Is A entitled to recover?

Answer:

A cannot recover in this action. The property wrongfully held by B belongs to the X corporation, not to A, and the fact that A owns all of the stock of the corporation does not vest A with the title to this property. A corporation is an artificial person, a legal entity, separate and distinct from the stockholders, and remains such even when all the stock is held by one person, as in this case. To effect a recovery of the property in question, the action must be brought in the name of the X corporation and no other.

Partnership

Answer one of the following two questions:

9. A, B, and C form a partnership, each by mutual agreement contributing equally to the original capital. Later C furnishes various further sums to the partnership to prevent financial difficulties, the partnership finally being obliged to make an assignment for the benefit of its creditors. What are C's rights with regard to the additional sums furnished by him?

Answer:

Had the partnership remained solvent, the advances made by C would have been repaid to him in the ordinary course of events. Or, if the firm had been dissolved while some assets remained, C would have been entitled

to the return of his advances, prior to any distribution of the original contributions to the three partners. In the case in point, however, C's advances, together with the original contributions, were all absorbed in losses or in payment of firm debts. C therefore paid more than his share of the partnership indebtedness to the extent of his advances. He is accordingly entitled to contribution from A and B. As the three partners shared in the profits or losses equally, having contributed equally to the original capital, and no mention appearing of any other basis of sharing profits or losses, A and B are each liable to C for one-third of the additional sums advanced by C. It should be added that, as a general rule, one partner cannot recover by way of contribution from his co-partners for advances or loans made by him to the partnership unless there has been a judicial accounting and settlement of the partnership affairs.

10. C is admitted as a partner in a partnership composed of A and B on contributing a certain amount to the partnership capital. Prior to C's admission, the partnership of A and B incurred a large obligation which subsequent to C's admission as a partner the partnership assets were insufficient to satisfy. A and B having no financial responsibility, X seeks to satisfy his claim out of the individual assets of C. Can he succeed?

Answer:

X cannot succeed. An incoming partner is not liable in the absence of an agreement to that effect, express or implied, for pre-existing partnership debts. The presumption is against such agreement.

This is the common law rule.

Section 17 of the uniform partnership act (now in force in Idaho, Illinois, Maryland, Michigan, New Jersey, New York, Pennsylvania, Tennessee, Wisconsin and Alaska) provides that "a person admitted as a partner into an existing partnership is liable for all the obligations of the partnership arising before his admission as though he had been a partner when such obligations were incurred, except that this liability shall be satisfied only out of partnership property."

In the case given, however, X seeks to satisfy his claim out of C's individual assets. As above indicated, this cannot be done, either at the common law or under the statute.

Bankruptcy

Answer the following question:

11. On examining the books of the Y corporation you find a judgment in favor of the corporation against A for $1,000.00 recovered on December 10, 1919. You also find that on July 16, 1920, A filed a voluntary petition in bankruptcy showing assets (both real and personal property) amounting to several thousand dollars and liabilities consisting, in addition to the judgment, of amounts due on various promissory notes and open accounts. How would you treat the judgment in preparing a financial statement for the corporation?

Answer:

It is shown here that A's assets consist of both real and personal property. It is a general rule, and the statutes in the several states so provide, that a judgment shall be a lien on the judgment debtor's real estate from the time it is rendered. Section 67f of the bankruptcy act provides that judgment liens obtained or created within four months prior to the filing

of a petition in bankruptcy by or against the judgment debtor are dissolved by the adjudication of such person to be a bankrupt. This is equivalent to a provision for the preservation of such liens obtained prior to the four months' period. The judgment secured by the Y corporation against A was rendered more than six months before A filed his petition. The lien of the X corporation on A's real estate is therefore not affected by the bankruptcy proceedings. The other indebtedness of A is shown to consist only of promissory notes and open accounts. These are unsecured claims, over which a judgment lien takes precedence. The judgment in question, therefore, to the extent that A's real property is worth up to $1,000, is a good asset and should be so shown on the financial statement of the Y corporation.

Federal Income Tax

Answer the following question:

12. In 1909 A and B formed a corporation for the purpose of conducting the business then carried on by them under a partnership, each taking equally shares of the capital stock. B died on June 1, 1917, bequeathing his shares of stock to his son Z by will. Because of B's death the corporation ceased active business and began to liquidate. From time to time assets were disposed of and dividends were declared and paid from the moneys received. What is the status of such dividends for federal income-tax purposes

(1) as regards A?
(2) as regards Z?

Answer:

(1) As regards A, it would be first necessary to determine the value of his stock on March 1, 1913. To the extent that the liquidation dividends exceeded this value, the excess would be treated as taxable income for the taxable period in which the last of the liquidation dividends were received by A. If, on the other hand, these dividends fell below the value of the stock on March 1, 1913, the difference would constitute a valid deduction in A's favor.

(2) As regards the status of the liquidation dividends received by Z for tax purposes, they would be treated in the same way as the proceeds received by Z would have been treated if he had sold his stock. That is, the value of the stock should be determined as of June 1, 1917, when it came into Z's possession as a legacy from his father B. If the total liquidation dividends received by Z exceeded the value of the stock as of June 1, 1917, the excess would be taxable income, returnable for the taxable period in which the final dividend was received. If the total liquidation dividends were less than the value of the stock on June 1, 1917, the difference could be shown as a deduction by A in his return.

Income Tax and Employees' Bonus

Editor, Students' Department:

Sir: In preparing the final statements and the income-tax return of the business where I am employed, I am confronted by one of those difficult bonus questions. The business is an individual proprietorship; and at the beginning of 1920 the proprietor engaged a manager agreeing to pay him a stated salary and in addition a bonus based on the increase in the profits of 1920 over the profits of 1919. The profits of 1919 were $6,760.23 after

paying the income tax. This year the profits are $19,638.92 before deducting the bonus and before deducting the income-tax. The bonus is to be 10 per cent. of the increase in profits after considering both the tax and the bonus as expenses, and in computing the tax it will of course be necessary to deduct the bonus from the profits of $19,638.92 to find the taxable net profit. It is agreed between the proprietor and the manager that in computing the tax, which shall be treated as an expense in computing the bonus, no personal exemptions shall be allowed and income from other sources shall be ignored. Will you please explain how to compute the bonus and the tax?

Yours truly,

Chicago, Illinois. H. R.

The method of computing the bonus and the tax will depend on whether or not the bonus is large enough to bring the taxable profits below $18,000.00, because if the profits after deducting the bonus are in excess of $18,000.00 there will be a surtax at 8% on the amount between $18,000.00 and $20,000.00, but if the taxable profits are less than $18,000.00, the highest surtax rate will be 7%. It can be determined by inspection that the profits after deducting the bonus will be in excess of $18,000.00.

The profits for 1920 before deducting the bonus were...	$19,638.92
The profits for 1919 were	6,760.23
Excess	$12,878.69

If this entire difference were subject to the 10% bonus, the bonus would be $1,287.87 and the taxable profits would be $19,638.92 minus $1,287.87, or $18,351.05. But as the bonus will be less than $1,287.87, the taxable profits will be more than $18,351.05. Having established the fact that there will be a surtax at the 8% rate, the solution can be performed as follows:

The tax on $19,638.92 would be:

Normal tax:		
4% of $4,000.00		$160.00
8% of 15,638.92		1,251.113
Surtax:		
1% of $1,000.00	10.00	
2% of 2,000.00	40.00	
3% of 2,000.00	60.00	
4% of 2,000.00	80.00	
5% of 2,000.00	100.00	
6% of 2,000.00	120.00	
7% of 2,000.00	140.00	
8% of 1,638.92	131.113	681.113
Total tax		$2,092.23

The bonus will reduce the profits subject to the normal tax at the 8% rate and also the profits subject to the surtax at the 8% rate. If the bonus is represented by x,

$$\text{True tax} = \$2{,}092.23 - .08x - .08x$$
$$= \$2{,}092.23 - .16x$$

Since the bonus is 10% of the difference in profits ($12,878.69) minus the tax and minus the bonus,

$$x = 10\% \ (\$12{,}878.69 - \text{tax} - \text{bonus})$$
$$x = 10\% \ [\$12{,}878.69 - (\$2{,}092.23 - .16x) - x]$$
$$x = 10\% \ (\$12{,}878.69 - \$2{,}092.23 + .16x - x)$$
$$10x = \$12{,}878.69 - \$2{,}092.23 + .16 - x$$
$$10x - .16x = \$12{,}878.69 - \$2{,}092.23$$
$$10.84x = \$10{,}786.46$$
$$x = \$995.06 \text{ the bonus}$$

Proof

Profits before bonus	$19,638.92
Less bonus	995.06
Taxable profit	$18,643.86

Computation of tax

Normal:		
4% of $4,000.00		$160.00
8% of 14,643.86		1,171.508
Surtax:		
10 + 40 + 60 + 80 + 100 + 120 + 140 =		550.00
8% of $643.86		51.508
Total tax		$1,933.016

Computation of bonus

Difference in stated profits		$12,878.69
Less: Tax	$1,933.02	
Bonus	995.06	2,928.08
Basis of bonus		9,950.61
Bonus = 10% thereof (as above)		995.06

As pointed out in the beginning of this answer, the method of computing the taxable profits, the tax and the bonus will depend on whether the bonus is sufficiently large to reduce the taxable profits below $18,000.00 or not. If the profits had been reduced below $18,000.00, the solution would have been as follows, assuming these facts:

Profits, 1920, before tax and bonus	$18,500.00
Profits, 1919, after tax	6,500.00
Difference	$12,000.00

Let x represent the amount by which the taxable profits are reduced below $18,000.00.

Then taxable profits = $18,000.00 — x

And the bonus = $500.00 + x

The tax on $18,000.00 would be:

Normal:		
4% of $4,000.00		$160.00
8% of 14,000.00		1,120.00
Surtax:		
At 1%	$10.00	
2%	40.00	
3%	60.00	
4%	80.00	
5%	100.00	
6%	120.00	
7%	140.00	550.00
Total tax		$1,830.00

The reduction of the profits to $18,000.00 — x, will reduce the tax by 8% of x (being the normal tax rate) and also by 7% of x (being the surtax rate on the profits between $16,000.00 and $18,000.00).

Hence the tax on $18,000.00 — x = $1,830.00 — .08x — .07x

The bonus = 10% ($12,000.00 — tax — bonus)

Hence $500.00 + x = 10% [$12,000.00 — ($1,830.00 — .08x — .07x) — ($500.00 + x)]

$500.00 + x = 10% ($12,000.00 — $1,830.00 + .15x — $500.00 — x)

$5,000.00 + 10x = $12,000.00 — $1,830.00 + .15x — $500.00 — x

10x — .15x + x = $12,000.00 — $1,830.00 — $500.00 — $5,000.00

10.85x = $4,670.00

x = $430.41

Then the bonus = $500.00 + x = $500.00 + $430.41 = $930.41

Proof

Net profit, 1920, before tax and bonus	$18,500.00
Less bonus	930.41
Taxable net profit	$17,569.59

Computation of tax

Normal:	
4% of $4,000.00	$160.00
8% of 13,569.59	1,085.567
Surtax:	
10 + 40 + 60 + 80 + 100 + 120 =	410.00
7% of $1,569.59	109.871
Total tax	$1,765.44

Computation of bonus

Increase in profit		$12,000.00
Less: Tax	$1,765.44	
Bonus	930.41	2,695.85
Basis of bonus		9,304.15
Bonus = 10% thereof (as above)		930.41

Corporate Transactions and Stockholders' Transactions

Editor, Students' Department:

Sir: I shall be glad if you will please give an opinion on the following question:

A group of individuals purchased 90% of the capital stock of a corporation from an individual who retired from the business. They paid him a bonus of $50,000 over and above the book value of the assets acquired, such bonus having been expressly stipulated as a payment for the goodwill of the former owner. The corporation remained intact and continued to operate under the original charter and name without increase of capital stock.

What entry should be made on the books of the corporation properly to reflect the investment of the purchasing stockholders of the goodwill?

Does the investment of $50,000 for goodwill constitute an increased invested capital of the corporation for federal profits tax purposes?

Yours very truly,

Fort Worth, Texas. J. R. M.

No entry should be made on the corporation's books. The corporation is not a party to the transaction; hence the corporation's books cannot be affected by it. If it were proper or necessary to reflect the payment for goodwill on the corporation's books because of this transaction, it would be equally proper and necessary to make an entry in the general books of the corporation every time an individual stockholder sold his stock to another individual and to reflect in the corporation's goodwill account the difference between the par of the stock sold and the price paid. The fact that the purchasing parties stipulated that the $50,000.00 was paid for the goodwill of the former owner of the stock does not make the transaction a purchase of the goodwill on the part of the corporation.

Money in Oil

Editor, Students' Department:

Sir: An oil and gas company was incorporated in May, 1909, with 24,000 shares at $1.00 each. All shares were issued as of that date but no money was received for stock nor was entry made. Leases were bought for $1,288.00 but were conservatively valued, in my opinion, at $6,288.00. This excess of $5,000.00 was credited to capital and charged to lease account. I corrected this entry by crediting capital stock with $24,000.00, charging capital stock deficiency with $19,000.00 and leases $5,000.00. In the year 1914 the company accumulated a surplus allowing for depreciation sufficient to wipe out this $19,000.00 deficit; therefore I charged surplus $19,000.00 and credited capital stock deficiency a like amount. When depletion is set up the surplus will show a deficiency at close of 1914. The business shows a loss for every year thereafter allowing for depreciation and depletion.

On April 16, 1917, the company borrowed $12,000.00 endorsed by two new officers and the old president. The company paid all old claims and notes and used the balance to buy the outstanding stock of 24,000 shares—17,333⅓ shares at 15 cents and 6,666⅔ shares at 33 cents. The old president owned 6,666⅔ shares, and he received 15 cents a share or $1,000.00. The stock was then reissued without any consideration to the three endorsers of the $12,000.00 note. The entry was to credit notes payable with $12,000.00 and charge the bank $12,000.00. Then for the $4,800.00 in cheques written for the stock at .15 and .33, the bank was credited and stock account was charged. The journal entries were as follows: debit investment $4,800.00, credit stock sales $4,800.00. The charges to stock account and above journal entry are, of course, errors. I corrected these entries, charging treasury stock with the par value of the stock, $24,000.00, crediting the bank $4,800.00 and surplus $19,200.00.

The stock was reissued to the three endorsers of the $12,000.00 note (and two others one share each) without any consideration. For this I charged capital stock deficiency and credited treasury stock $24,000.00 each. I then charged surplus and credited capital stock deficiency with $24,000.00 each. The corporation at the close of 1920 will show a deficit of about $20,000.00, after allowing for depreciation and depletion, with one year's depreciation and depletion necessary to wipe out the investment accounts—buildings and power plants, tanks, pipe and fittings, leases, drilling and shooting. Of course there is still quite an equity in these accounts even though closed through depreciation and depletion.

A contract was made to sell the company in 1919 and $2,447.00 was paid. This was credited to capital in error, and I corrected entry, crediting the purchasing company. Purchasing company has not fulfilled its contract in this company's opinion, yet the purchasing company asks for a return of its money. As soon as it is decided, we shall return all or part or shall credit this balance to surplus. Another agreement has been made to sell the company to a larger corporation for $20,000.00 and $10,000.00 has been paid. I have credited this to the purchasing company. Later when the full amount shall have been paid, the stock will be issued to the holding company and I suppose surplus will be credited with the $20,000.00. Perhaps I should have left the capital stock deficiency of $24,000.00 open in 1917 and should credit this account now with the $20,000.00 when received and charge surplus with the difference.

I would like to have your opinion on my entries together with criticisms and corrections, if it is not asking too much.

Yours truly,

C. H. S.

Some time ago, in conversation with a petroleum engineer, I was informed that the capitalization of the companies organized to exploit the oil fields of a certain district in one of the southern states greatly exceeded the value of the apparent oil supply in that district. He cited these statistics to prove that investors in oil companies would never get back their money. Apparently he was not familiar with the methods of finance and accounting described in your letter.

When the stock was issued it would seem that honesty would require an entry debiting deficit and crediting capital stock $24,000.00. When the leases were acquired they should have been put on the books at their cost, $1,288.00, and they should not have been written up, regardless of their value. I am a little curious about the source of the money to pay for the leases—perhaps they were purchased on account. It is hard to believe that the stockholders put in the money.

The charge to lease and credit to capital, $5,000.00, was, of course, wrong. Your entry does not correct it. You leave the accounts, at that point, with a debit to capital stock deficiency (deficit) of $19,000.00, a debit to leases of $6,288.00 and a credit to capital stock of $24,000.00. The debit to deficit should be $24,000.00 and the debit to leases $1,288.00.

Closing the surplus of $19,000.00 which arose from earnings by crediting it against the deficit account was correct; but there would have been a $5,000.00 balance remaining in the deficit account if the leases had not been improperly written up.

Endorsing a corporation's notes so that the company can borrow money to buy the stockholders' stock and give it back to them is an ingenious method of paying a dividend when the company has no surplus and no cash. You have corrected the erroneous entry made to record this transaction, and you have the right idea about the treatment of the amounts paid by the various parties who have entered into contracts for the purchase of the company. However, as to crediting surplus with the total amount paid by the latest purchaser, it would seem to me that you ought to credit the assets sold if there are any.

I should be interested in knowing the outcome of these two contracts to sell the company. The situation seems a little complex.

Correspondence

Profit on Sale of Investments

Editor, The Journal of Accountancy:

SIR: I have read with considerable interest your editorial in the January issue of THE JOURNAL OF ACCOUNTANCY in regard to the federal decision of *Brewster v. Walsh,* which holds that profits realized from the sale of investments or capital assets are not income and therefore not taxable under the sixteenth amendment of the constitution.

I have also read with renewed interest, in your February issue, opposite views regarding the question from Mr. John Bauer and Mr. George O. May.

As this federal decision is of vital importance to the business world, I presume public accountants have given the matter more or less consideration and are expressing their views on the one side or the other.

Like the question of interest on investment, it will be impossible to obtain unanimity of opinion from accountants on this question, and the only thing that can be expected is the presentation of the process of reasoning leading to their different conclusions.

My point of view coincides with Mr. Bauer's rather than with Mr. May's. As Mr. Bauer points out, if A owns real estate costing $100,000.00 on which he earns $8,000.00, he is complying with the law when he pays a tax on $8,000.00 because this amount is *income* on his investment. If his real estate appreciates in value to $200,000.00 on which he subsequently earns $16,000.00 and he pays a tax on $16,000.00 he is still complying with the law because $16,000.00 is his income or return on his investment. Now if A sells his real estate later for the appreciated amount of $200,000.00 and pays a tax on the appreciation of $100,000.00 he is certainly paying a tax on *capital* instead of on *income.* It is obvious that there is an increment of $100,000.00, but we must discriminate between increment arising from capital increases, which we will call capital increment, and that arising from the use of capital, or revenue increment.

Mr. May states that if increments of capital are in no circumstances income, decrements of capital cannot be allowed to enter into the computation of income, and therefore depreciation on machinery used in production would not be a proper deduction. In my opinion the two cases are not parallel. Nearly all capital necessary to be invested in an enterprise for operating returns is in a larger sense an expense. This is true whether the capital is used as working capital to pay for operating labor, to purchase operating supplies, or is invested in buildings or machinery.

The only difference is that labor and supplies become almost immediately a current operating expense, while the capital invested in machinery and buildings has to be absorbed through operation periodically in the form of depreciation. In other words these diminishing assets must be charged against operation to find correct costs on which to compute net income. However, if capital assets actually increase in value, actually increase the investment of the business beyond the original amount, is not this a capital accretion? What has it to do with revenue? It increases the net worth of

the business, but the net worth may be increased through capital accretions as well as through revenue accretions, and logically only revenue or income accretions should be taxable. This is fully recognized in the fact that the capital stock of a corporation sold by the corporation at a premium is not taxable, because it is a capital accretion. This is fully realized by all practising accountants when in corporation accounting they endeavor to differentiate between capital surplus and revenue surplus on the books of the corporation, as well as on their balance-sheets.

Let us take another example. Suppose a business man be so shortsighted as to be without fire insurance on his plant, and it takes fire and becomes a complete loss. Or suppose a company operating a fleet of vessels carried no insurance against losses by storm, etc., and they foundred. Logically, these must be considered capital losses and have nothing to do with revenue and therefore should not be considered in income-tax matters.

I am not interested particularly at this time in the items which are deductible or not deductible under the present income-tax law. Law speaks in an imperative manner. As Blackstone says "it commands or prohibits" and it must be obeyed after enactment. But law is supposed to be founded upon justice and equitable principles, and a frank and full discussion of principles by the people has everything to do with the laws which ultimately remain on our statute books.

I contend with Mr. Bauer that capital accretions should not be taxable and that only revenue accretions or income should be taxable under an *income-tax* law.

Yours truly,

ARTHUR BERRIDGE.

Portland, Oregon, March 18, 1921.

Book Reviews

FEDERAL INCOME-TAX PROCEDURE, 1921, by ROBERT H. MONTGOMERY. The Ronald Press Co., New York. 1205 pp.

When the reviewer ventured to suggest some years ago in the course of review of Montgomery's *Income-tax Procedure, 1916,* that the prospective flood of treasury decisions might warrant a two-volume edition of this work in the near future he little foresaw this day when the matter has expanded to a 1200-page manual on income-tax procedure—to say nothing of the second volume covering the excess-profits tax. And now Col. Montgomery grimly hints in his preface that proposed enactment of a general-sales tax without preliminary consultation by congress with public accountants (which is unlikely) will result in "a tremendous aggregate of professional work," a statement which makes one tremble at the prospective size of the next edition of *Income-tax Procedure.* There are those who hold that the income tax is the ideal method of raising public revenue because it is the fairest and simplest way to extract money from the taxpayer. Fairest it may be, but simplest? Could any method be devised (always excepting the marvelous excess-profits tax, of course) that would have more far-reaching ramifications and bring up more puzzling complications? Let Col. Montgomery's twelve hundred pages of law, decisions and comments answer.

Those who have been obliged to keep posted on the income-tax laws from the beginning will undoubtedly echo the author's statement (page 15) that "the 1918 law is simpler and more equitable than its predecessors," but it is doubtful if the thousands who were caught in the net of lowered exemptions will agree. In his own experience the reviewer has been amazed at the inability of otherwise shrewd business men to understand the purport of apparently plain questions on the returns. Some of this may be due to thick-headedness, to be sure; but it must be admitted that often the highly technical language of the return is partly to blame. For instance, the first instruction on the small form has misled many to believe that no return was necessary because the average small retailer or wage earner takes net income to mean what he has left of his total receipts after paying all his expenses, including personal, for the year. Even Col. Montgomery fails to make the point clear in his definition of net income (page 27) when he uses the broad term "less deductions for expenses" without the important qualification "incurred in business or trade." Surely it would be an easy matter to state on the return in parentheses "i. e., total income less business expenses." To be sure this is not a comprehensive description of what the law regards as deductible expense, but it would be close enough to put the unwary on notice.

As a matter of course the author follows the order and classification of items of income and expense used in the statute, which is not the order followed on the returns. Familiarity with the law and the form enables the experienced accountant to turn to the pages he may require, but we should like to see the manual follow the order of the return. It would be

more serviceable to the neophyte or the ordinary business man. At all events, an additional contents-page indicating the pages covering each schedule of the return would prove a time saver.

It is a happy suggestion (page 87) that corporation returns should be prepared on forms 8½ x 11 inches in size and it might well be extended to partnership and individual forms. Typewriters are widely used these days and with the advent of the portable machines now being put on the market by several manufacturers their use promises to become well-nigh universal.

The instructions as to making returns under oath (page 89) prompts the reviewer to ask a question which has been on his mind for some time: Why should the government require returns to be attested at all? Beyond adding to the income of thousands of notaries public no particular good seems to arise from it. The income-tax bureau itself certainly disregards it whenever it calls upon a taxpayer to substantiate his return with additional information. It would seem as if signing with a competent witness would be sufficient to establish judicially the fact of signature. In the early days of withholding and monthly returns, when it really seemed as if every communication of any kind with the government had to be sworn, the writer had a voluminous and testy correspondence with a patient but helpless collector on this subject, in the course of which he showed that the withholding, payment and returning of a tax of $1.75 cost the corporation he served $5.20 in notarial fees. Things have improved since then, but there is still a bit of the old red-tape about the present regulation which requires a trading concern to have the inventory attested as well as the return. Considering that the signer of a return swears to the accuracy of everything in it, including the inventory in schedule A, this seems superfluous, to say the least.

A question interesting to public accountants is touched upon by the author in his remark (page 125) "it should be noted that the plenary power of examination" (by treasury officers) "extends also to persons other than the taxpayer who have knowledge of his income." What becomes of the professional secrecy of the public accountant in such case? The author is silent on this point. As far as the reviewer can ascertain, it seems to be the general opinion in the profession that the public accountant cannot plead privilege, as a lawyer can, if he is called upon to answer the questions of a treasury agent. This might give rise to a curious anomaly. A taxpayer is sometimes obliged to consult his lawyer as well as a public accountant in preparing his return. In case of later investigation the lawyer could plead privilege and refuse to answer, in which he would be upheld by the courts, whereas the accountant, who may have acted upon the advice of the lawyer, would be compelled to answer. It is obvious that if this is good law and practice there can be no confidential relationship between accountant and client in income-tax matters. This problem is serious enough to warrant the attention of the American Institute.

The inequity of requiring the recipient of tax-free bond interest to return the 2 per cent. paid by the corporation is discussed by the author with his usual clarity. As he points out, the corporation in effect pays the

8 per cent. normal tax for the stockholder but the latter is not obliged to include this tax as additional income. The reviewer would go further and say that the taxing of bond interest to the recipient while exempting the receiver of dividends is also inequitable. Following the judicial fashion of the day of looking through the form to the substance, it is common knowledge and common sense that interest on bonds is as much a part of profits as dividends. This is not orthodox, but it is true. Interest paid on current loans may be a legitimate business expense, but interest paid on bonds which are a part of the permanent capitalization of a corporation is not an expense but a guaranteed, limited share of the profits. It would be better and more equitable practice if the corporation income tax were levied on net earnings *before* interest. Then the bond holder would be placed in the same position as the stock holder and relieved from the normal tax on bond interest. There would then be no question of covenant tax-free interest to worry and obfuscate the recipient of the interest, for the tax on the net earnings of the corporation would not be a tax on the bond interest per se. This change would necessitate still another definition of net income as applied to corporations, but congress has become quite skilful in definitions of late years. The increased taxes from corporations would take the place of the excess profits tax in great measure. If reports from Washington are reliable there is to be an increase in corporation taxes anyhow, and this method would have the advantage of doing away with the present cumbersome and irritating method of collecting and returning tax-free interest.

Col. Montgomery handles the subject of reasonable salaries, bonuses and Christmas gifts in a vigorous and common-sense way that one wishes would clear the rather foggy atmosphere in the tax bureau. There is a slight error in stating that the case of the *U. S. v. Phila. Knitting Mills* was brought under the 1917 act. It was under the 1909 excise-tax law, but nevertheless, and notwithstanding the letter of Special Assistant United States Attorney Walnut contending that the decision of the United States district court did not apply to the income-tax laws, the principle laid down by the court is broad enough to cover them all. The gist of the decision is that while congress undoubtedly had the power to limit the amount of reasonable salaries or compensation as deductible expense it did not exercise such power; therefore no such power of deciding on the amount of reasonable compensation to be allowed was delegated to the commissioner. Subject to affirmation by the higher courts this practically nullifies this clause in the 1909 and all subsequent acts. At present the test of deductibility is, in the author's words, "whether or not they are legal and are in fact payments purely for services." The reviewer, however, cannot follow Col. Montgomery in his further doubt that "congress may delegate this power" (of limiting the amount of deductions for salaries) "to the commissioner." He goes on to say: "If this discretion may be delegated to him, why could not congress go a little further and say that corporations and individuals shall pay a tax on a net income which shall be determined by the commissioner of internal revenue?" What else has congress done in

sec. 1317 where it is provided that the commissioner "may, from his own knowledge * * * make a return * * *"? It is a penalty clause to catch slackers, to be sure; but the power to fix the amount of net income is certainly delegated to the commissioner.

On page 655 the author refers the reader to the second volume of his manual for a form of reconcilement statement important to any taxpayer who keeps books. This will not trouble the public accountant who will naturally have both volumes, but is it not rather an imposition on the individual or partnership to be obliged to buy the second volume which deals with a subject confined to corporations? The form should have been given in this first volume as well. W. H. LAWTON.

HORATIO NELSON DRURY

Horatio Nelson Drury, a member of the firm of Pace & Pace, New York, and a well-known educator, died of pneumonia March 7, 1921, at his home in Brooklyn, New York. Mr. Drury was born in Burlington, Vermont, educated in the schools of his native town and was graduated with honors from the University of Vermont in 1900. He was well known for his teaching of English in several of the large business organizations of the country and also as a lecturer and author of text-books.

Haskins & Sells announce the consolidation of their practice in and about Kansas City, Mo., with that of F. M. Weaver. F. M. Weaver will be associated with Page Lawrence in the management of the office.

Riggins & Beck announce the opening of offices in the First National Bank building, Bartlesville, Oklahoma, and South Western National Bank building, Oklahoma City, Oklahoma.

Ernst & Ernst announce the removal of their office to the fourteenth floor of the Hanna building, Cleveland, Ohio.

William Gray announces the opening of an office at 1107 McArthur building, Winnipeg, Manitoba.

A. Meltzer & Co. announce the removal of their office to 147 Fourth avenue, New York.

Bennett & Berck announce the removal of their offices to 116 West 39th street, New York.

George Illmensee announces the removal of his office to 82 Beaver street, New York.

Edward C. Smith announces the removal of his office to 15 Park Row, New York.

G. Ed. Ross announces the opening of an office at Salem, Oregon.

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The Aims of the Institute*

By Carl H. Nau

It was my privilege to address the first middle-west regional meeting of the institute held in Chicago last November upon the subject of the American Institute of Accountants. About three hundred accountants, not more than half of whom were members of the institute, were in attendance at that convention.

There are still numbers of practising accountants who, though eligible to membership in the institute, are not yet members thereof. Numbers of practising accountants who are not yet eligible are in the process of becoming eligible. It is hoped that accountants who are eligible will become members, and the institute desires to maintain contact with accountants who are not yet qualified for membership, that they, too, at the proper time, may become members. This is the reason why non-members are invited to participate in these regional meetings of the institute.

At the Chicago meeting I attempted to present a brief sketch of the history of the movement which, beginning in 1887 with the organization of the American Association of Public Accountants and passing through a period of organization of state societies and of C. P. A. legislation, finally resulted in the organization of the American Institute of Accountants in 1916. The genesis and present activities of the institute were reviewed in that address.

Like every worth-while and durable human institution, the institute was not born in the brain of a few individuals, nor was it conceived in any spirit of exploiting the selfish interests of its founders. It was rather the natural and logical evolution of an organization to meet a need which had developed in the growth of our profession.

*An address delivered at a regional meeting of the American Institute of Accountants, Detroit, Michigan, April 8, 1921.

Since my presence is chiefly directed toward bringing the message of the American Institute of Accountants to those non-members who are now or who may become eligible to membership, may I direct you to the February number of THE JOURNAL OF ACCOUNTANCY for my remarks on the origin of the institute and the reasons for its existence, by way of laying a foundation for my remarks this evening?

The subject assigned to me by your committee for this second middle-west regional meeting is *The Aims of the Institute*. It occurs to me that I can do no better than, preacher-like, to take article I of the constitution of the institute as the text for my sermon and briefly comment upon the several propositions so concisely, but nevertheless completely, enunciated therein. It epitomizes the aims of the institute much better than anything I might say.

It reads as follows: "Its objects shall be to unite the accountancy profession of the United States; to promote and maintain high professional and moral standards; to safeguard the interests of public accountants; to advance the science of accountancy; to develop and improve accountancy education; to provide for the examination of accountants for membership, and to encourage cordial intercourse among accountants practising in the United States of America."

The first enumerated aim of the institute is:

"To unite the accountancy profession of the United States."

Here let me pause to direct your attention to the fact that the word used is "profession"—not vocation, not trade, not commercial pursuit of any kind or description—but "profession." It may not be easy always to distinguish a profession from a commercial pursuit, but if accountants as a body are to lay any permanent claim to being members of a profession, they must make the distinction.

I am not going to attempt to define or to distinguish all of the characteristics of a profession. But let me enumerate a few characteristics which a profession must have.

A profession must have an educational programme.

It must be liberal, broad and catholic in its aims.

Its practitioners cannot preëmpt unto themselves the exclusive knowledge or discovery of any useful principle or device without imparting such knowledge or information to the whole body of professional practitioners and to the world. There can be no patent or copyright on professional information.

It must develop a body of professional ethics.

It must always put service above financial gain.

An individual practitioner may occasionally, perhaps persistently, violate the code of ethics of his profession, but the development of the ethical precepts and rules of professional conduct adopted by an organized body of any profession must be such as to distinguish it and set it apart from ordinary commercial pursuits.

Therefore, the first aim of the American Institute of Accountants is to unite in one body the practitioners of the profession of accountancy of the United States, to the end that the growth of the profession, its standards, its ethics and its discipline may be guided and controlled from within itself, and to the further end that the body of the profession may have an articulate voice and speak with authority upon all matters having to do with the development of the profession and with the interests of its practitioners.

The institute cannot realize this aim nor achieve its highest purpose if considerable numbers of eligible practitioners withhold themselves from membership. The voice of the institute cannot be a voice of authority unless it speaks the composite thought of the profession itself and unless its officers and committees give utterance to the consensus of opinion of its membership.

The American Institute of Accountants is the instrument through which there may be a union of the accountancy profession; and without it, or some other organization which shall be representative of the entire body of the profession, there can be no permanent professional solidarity and accountancy must relinquish its claims to a professional status and frankly describe itself as an ordinary commercial pursuit in which the feeling of fellowship inherent in union shall be abandoned and competition shall supplant coöperation.

The second aim of the institute is:

"To promote and maintain high professional and moral standards."

I submit that the institute cannot maintain high professional standards if for a moment it relaxes its high requirements for membership. It has sometimes been said by those who, either because they do not know or because they themselves have not attained that condition of eligibility which permits them to become members, that the American Institute of Accountants is an

exclusive body; that it is a sublimated mutual admiration society; that its aim is to establish a monopoly for itself and to keep other aspiring and enterprising practitioners out. In some cases this false notion may be the result of misinformation; but to a considerable extent it is the result of propaganda by those who cannot pass the rigid test of eligibility and meet the requirements for membership.

Should the institute let down the bars and take into its fold every person who for a time hangs out his shingle as a public accountant and offers his services to an ill-informed and unsuspecting public, whether he be qualified for membership or not, it certainly could not maintain its aim to "promote high professional and moral standards." It is, therefore, necessary that the body which is to unite the profession of accountancy in the United States should maintain high and rigid standards consistent with the dignity and the importance of the interests in its keeping.

However, the institute welcomes into its membership every practitioner in the country who can comply with its requirements for membership. Its ideals are in the keeping of the great body of the profession itself, and every practitioner owes a duty to the profession he loves to participate in its development. He can do this by becoming a member of the body which is the exponent and repository of the best traditions and ideals of the profession.

Another aim of the institute is:

"To safeguard the interests of public accountants."

While the institute frequently moves to safeguard the interests of some specific individual practitioner, I submit that it can better safeguard the interests of public accountants by moving to safeguard the interests of the profession itself than by interposing its authority, counsel or advice in specific and individual instances. Through its council and executive committee, through its committee on legislation, committee on professional ethics, committee on professional advancement and other committees, the institute never loses a chance or fails to take advantage of an opportunity to safeguard and advance the interests of public accountants by all honorable and proper means.

The services rendered to our government by the institute and by many of its officers and members doubtless accomplished more in the way of bringing our profession to the front and creating opportunities for constructive service, and thus advancing the interests of the profession, than any other one thing that has yet

been done to promote the interests of public accountants. Let us suppose that the institute had not been in existence at the outbreak of the war and that this opportunity presented itself. Individual accountants might perhaps have achieved a small measure of success, but no such forward movement of the entire profession could have taken place had there been no thoroughly representative and centralized organization of accountants like the institute. The activities of the institute at the outbreak of the war did more to put the profession of accountancy on the map than anything else that has happened since the profession came into being.

"To advance the science of accountancy" and "to develop and improve accountancy education."

Perhaps the one activity which has greater possibilities than any other single activity to forward this aim of the institute is the endowment of the library. Three years ago, at the suggestion of and with a large initial donation from one of the leading members of the institute, there was established an endowment fund, the income from which is devoted exclusively to the development and maintenance of a library and bureau of information. Since then, the institute has accumulated a professional library of many volumes, the information in which has been catalogued and made available to every member.

Perhaps of even larger importance than the knowledge preserved upon the printed page is the special knowledge and experience buried in the files and in the memories of individual accountants throughout the country. Any member who desires information or advice upon any question which may arise in his practice can direct his inquiry to the library of the institute. If the information is to be found in a book, he will be directed thereto. If it is not to be obtained in this manner, his question will be referred to some member or members who are entirely likely to be able to answer his question or to inform him of the best practice in respect of the matter. The person answering the question will not know the identity of the questioner. Neither will the questioner know who supplied the information.

Those members who have had occasion to avail themselves of this service appreciate how useful it has been to them. I heard one able and leading member of the institute say that he had obtained information through this service which was easily worth a fee of $1,000.00 to his organization and for which it willingly

would have paid. It happened that the person in possession of the information sought was entirely willing to impart it to a fellow member of the institute, but it is extremely doubtful if the inquirer could have obtained it in any other way.

Questions such as are deemed to be of general interest are published in the periodic bulletins issued by the bureau of information and are indicative of the value of the service it has undertaken to render.

There is now on the press and soon will be issued the *Accountants' Index,* which was compiled by the library. It will be a book of approximately 1600 pages and will contain information about every book or other published matter known to the library which may be of interest to practitioners or in any way relates to accountancy.

In the time at my disposal it is manifestly impossible to describe the various activities which are being forwarded by the institute. Information about them will be found in the reports of the various committees, appearing in the several year-books of the institute, in THE JOURNAL OF ACCOUNTANCY, in the bulletins and elsewhere.

"To provide for examination of candidates for membership."

A member of the board of examiners is present at this meeting, and doubtless he will explain the rules governing examinations which are set for admission to membership should there be anyone desiring information on this point.

"To encourage cordial intercourse among accountants."

This aim of the institute has surely been accomplished. The intimate and cordial social and professional relationships which have been established between accountants and between groups of accountants, all over the country, certainly has been a delight to behold. Many of those here present, as well as I myself, can testify to the beautiful and enduring friendships which have grown out of the opportunity for intercourse afforded by the annual meetings of the institute.

These regional meetings are a further step which has been taken to extend and increase the opportunity for such relationships. Many members and persons who at some time may become members can neither afford the time nor the expense of traveling to Washington to attend the annual meetings of the institute. Hence, these regional meetings are calculated to expand and multiply the opportunity for intercourse and companionship.

They permit a greater number of accountants to come in contact with each other and to become acquainted with the leaders of their profession. They bring the institute to those who cannot come to the institute.

Attendance upon these meetings enlarges their mental horizon and makes them fitter and better practitioners. It especially gives the younger practitioner an opportunity to broaden by hearing and participating in the discussions which make up the programmes at these meetings. It gives him a chance to see how others handle some of the problems which he will encounter in his daily practice.

The opportunity of contact with others who are thinking and working along the same lines is invaluable; and the friendships which are formed on these occasions are among the things that make life worth living. Personally, I would not exchange some of the friendships which were formed by attendance upon the meetings of the American Association of Public Accountants and of the institute for thousands of dollars. Each time I come away from a meeting, I feel that I am a better accountant and a better man.

What a difference this opportunity for association with other accountants has made in the viewpoint of the individual practitioner! I can remember the time when, with our provincial outlook, we were wont to look with suspicion upon another accountant. When we saw him on the street, we avoided him for fear he might learn where we were going and try to steal away our client. We have learned that we are not business competitors, but professional associates. Instead of trying to take advantage of each other, we have learned to coöperate with each other.

An increase in the number of accountants has not meant that the opportunity for service of a single one has been lessened thereby, but with the increase in the number of practitioners the opportunities for service have been multiplied.

Of course, the younger practitioner cannot expect at once to acquire the large clientele of some of the older practitioners. If he will stop to think how many years of faithful service it has required to build up their practice, he will have no remaining feeling of envy at their success—a success to which he also thinks himself to be entitled. Patience, hard work and the knowledge of work well done will do for him what it has done for them.

Let me ask him to consider how much better is his opportunity for establishing a practice than are those of the older and better recognized professions. If he is sometimes tempted to resort to the undignified methods of publicity and solicitation adopted by some—methods which sometimes seem to him to result in a more immediate and larger financial success—let me warn him that this apparent success is often illusory. "All is not gold that glitters," says the old proverb, and even though unprofessional methods in some cases for a time seem to result in better financial rewards, they will not obtain for one the lasting satisfaction that comes from pursuing the tried and proven methods, which, in the long run, are bound to have a more lasting result and lead to an increased self-respect as well as to the goodwill and respect of all one's fellows.

The ethical rules and precepts of the profession may not have been completely developed or have reached a stage of finality, but the best thought of the profession is rapidly approaching the position of unanimously adopting the viewpoint of the older professions in regard to the question of advertising and publicity. The time will soon arrive when, in the popular mind, the advertising accountant will be placed in the same category with the advertising lawyer, doctor or dentist, whom the intelligent public calls an ambulance chaser or a quack.

The time is too brief to permit of my enlarging upon this theme or further discussing the aims of the institute. Therefore, in closing permit me to renew the invitation which it is my practice to extend at every opportunity which presents itself. Let me ask every person, who is not now a member of the institute, to make application for membership, if he has the necessary qualifications and can comply with the requirements for membership. If he has not yet attained the necessary qualifications to become an associate of the institute, let me urge upon him the desirability of fitting himself for membership at the earliest possible opportunity.

Foreign-Exchange Arbitrage in Joint Accounts

By Albert L. Gareis

Although a number of good books and many articles on foreign exchange have been published, the feature of record keeping is seldom discussed.

The transactions relating to foreign exchange in general are so diversified that it is impossible to include all of them in one treatise, but it is necessary to discuss the principal classes of accounts kept in banking concerns which deal in foreign exchange to reach a full understanding of the peculiarities of foreign joint accounts.

It is known that double-entry bookkeeping originated in Italy. Therefore the commercial, industrial and financial establishments of continental Europe still adhere to Italian terminology, and the majority of American banking concerns, in accord, use similar terms in relation to foreign-exchange transactions.

There are three classes of accounts, each of which can be subdivided into various sub-classes according to individual requirements. The three principal classes are:—

1. *Conto Nostro* (our account).

This contains all transactions which one bank orders performed by its correspondent. All *nostro* accounts are kept in foreign currencies with a dollar equivalent based on cost, current market rates or a standard rate. At the present time the latter form cannot be used because the values are subject to broad fluctuations.

As these accounts represent "our account with a foreign concern," the entries in dollars are made for accounting purposes. They furnish the means of determining the profit or loss on consummated transactions.

In this respect the *nostro* accounts can be compared with the trading accounts of stock-brokerage houses—that is, the balance in foreign currency represents an asset or liability in the respective currency.

If such a balance is converted at cost or current market rates the difference between the amount thus obtained and the dollar balance of the account is the profit or loss on all closed transactions.

It is very important to keep an accurate control over the foreign currencies, as an error in posting or footing will affect the profit

and loss account as well as the asset value or the amount of liability. Few banking concerns maintain a control system of foreign amounts. Therefore serious discrepancies occur which are not brought to light until a statement is received from the foreign correspondent.

A simple method of controlling the foreign currencies can be easily installed by keeping a position book as illustrated in form 1.

Form 1

CR. MARKS - Position DR

DATE	DESCRIPTION	NOSTRO	FUTURES	SECURITY	METÀ	LONG	SHORT	NOSTRO	FUTURES	SECURITY	METÀ	DESCRIPTION	DATE
1/1 7/3 4/30	Bal Cable Sheet Journal	1,000000 2140	100.000	100000	— 129380	1'200.000 — 2140	— —				125000 4380	Cable Sheet Journal	7/1 4/30
FRANCS · Position													
1/1 7/1	Bal Cable Sheet	100.000	—	—	— 32345	100000 —	32345 —	32345			32345	Cables	7/1 7/3
ČECHO-KRONEN · Position													
1/1 7/1	Bal Cable Sheet	1000000 100000	200000	—	— 100000	1,200.000 100.000	100000 —	100000			100000	Cable Sheet "	7/3 "

This book shows the long positions on the credit side and the short positions on the debit side. Otherwise the manner of recording is almost identical with that used in posting to the stock ledger in stock-brokerage concerns. The position book will contain the *contra* entries in total to all foreign amounts posted to individual *nostro* accounts.

It must be understood that this position book will not serve the trader if he wants to speculate by taking advantage of his floating long and short positions. If this is required the trading department will be compelled to keep a book indexed by foreign banks and containing columns to accommodate the "floats" and "arrivals."

Under normal conditions steamer schedules would furnish exact dates of mail distribution in all parts of Europe, but at present these dates are problematical and the trader is compelled to allow for a generous safety margin. As it is not within the scope of this treatise to deal with the speculative feature it is not necessary to go further into detail on this phase.

2. *Conto Vostro* or *Conto Loro* (your or their account).

These accounts are kept in dollars only. They represent the account of a foreign correspondent with a domestic institution.

3. *Conto Metà* (joint account).
   a. "Our lines."
   b. "Their lines."

Joint accounts are the terror of all bookkeepers. It requires considerable skill and experience to keep them correctly. Errors are easily made and it often occurs that oversights on the part of foreign correspondents cause discrepancies to be buried forever.

Such accounts are usually kept in two sections.

"Our lines" contain all transactions originating or settled on this side, whereas "their lines" show all purchases or sales made by the foreign correspondent.

Therefore "our lines" are kept in dollars and "their lines" in foreign currencies without dollar equivalents.

If a joint account is closed it will show a profit or loss in dollars and in foreign currencies. The former will be transferred partly to profit and loss and partly to the respective *vostro* account; the latter by the foreign correspondent to his profit and loss and to the *nostro* account.

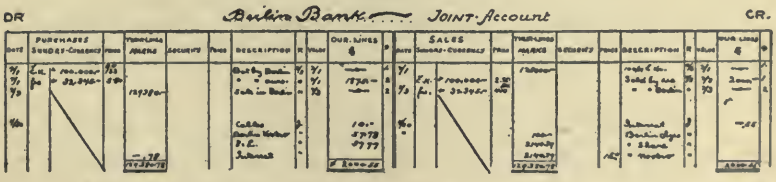
As a rule the basis of apportioning profits or losses is 50 per cent. to each participant. (*Metà* = half.)

A profit or loss in dollars will result if the transactions are covered for the same amount as charged or credited by the foreign bank on "their lines." If the same dollar amount is used as is shown on "our lines," a profit or loss in the foreign currency used by the correspondent will be shown.

The manner of covering or disposing not being the same for all transactions, profits or losses on both lines will be the result when the accounts are closed.

It is apparent that both lines of joint accounts are in close relationship to each other; and therefore it is better to keep both on one sheet as shown by form 2. The introduction of the position-

Form 2



control book mentioned previously serves as a control over the sundry foreign currencies or securities bought and sold for the joint accounts as well as for the foreign currency of "their lines."

Most transactions for joint accounts are executed by cable. Letters confirming the cable orders designate the accounts affected and contain full details concerning the transaction. As a rule printed forms are used which read approximately as follows:

"We have purchased (sold).....
and we debit (credit) our lines....."
or
"You have purchased (sold).....
and debited (credited) your lines....."

From this it will be seen that, although one side plays a passive part when the transactions originate, it will be active in settling the transactions, when the original purchase or sale is covered.

A concrete case may serve as illustration.

A European bank secures a certain amount in currency of a third nation for the joint account with an American bank. The latter is charged on the European lines and therefore must credit the European bank, but it must also show that a certain amount in the third currency was placed at its disposal. Up to this point no dollar values are involved and it is not necessary to apply any unless the amount was credited to the New York institution on one of its *nostro* accounts. The joint account is kept free of dollar entries in all circumstances.

If the market is favorable, New York will sell the foreign currency in New York and collect dollars which must be credited to joint account, New York lines, which will also be charged for the cost in dollars of the remittance to Europe needed to cover the original purchase. If this remittance simply covers the same amount in foreign currency, a profit or loss in dollars will be shown on "our lines."

In order to keep a clear and trustworthy record of complicated arbitrage transactions in joint accounts, a special form for joint account ledger sheets was designed (form 2) which combines both lines and shows the condition of the entire account at a glance.

The following example of a four corner arbitrage* transaction may serve as an illustration for the functioning of the accounting method:

*Arbitrage in foreign exchange is a means by which exchange may be secured in foreign countries at rates below the local market.

PARITY SCHEDULE

	New York market rates per 100	Berlin parity per 1.00	Berlin market rates per 1.00	New York parity per 100
Czecho kronen	2.00	1.33	1.25	1.87½
German marks	1.05	....	....	1.50
French francs	5.80	3.86	4.00	6.00
U. S. dollars	....	66.66	66.66	....

From the above schedule it will be seen that Czecho kronen are cheaper in Berlin than in New York, whereas the opposite is the case as regards French francs; therefore "Y. & Co." in New York ask the "Berlin bank" in Berlin to purchase Cz. Kr. 100,000 for joint account. The Berlin bank agrees to buy the kronen provided their purchase is covered in French francs. After securing the kronen in Berlin and the francs in New York, Y & Co. sell the kronen in New York and the Berlin bank sells the francs in Berlin. The entries to record the above transaction will be as follows:

PURCHASE OF CZECHO KRONEN IN BERLIN AT 1.25

Dr	Berlin bank joint a/c "their lines"	Cz Kr 100,000		
	Mark position—joint account	Marks 125,000		
	Böhm. escompte bank (nostro)	Cz Kr 100,000	$1,875.00	
Cr	Czecho kronen position (joint a/c)	Cz Kr 100,000		
	Berlin bank joint a/ "their lines"	Marks 125,000		
	Czecho kronen position (nostro)	Cz Kr 100,000		
	Cables bought payable—(joint account purchases)			$1,875.00

PURCHASE OF FRANCS IN NEW YORK AT 5.80**

Dr	Berlin bank joint a/c "our lines"	Fcs 32,345	$1,875.00	
	Francs position—(nostro)	Fcs 32,345		
Cr	Crédit Parisien (nostro)	Fcs 32,345		$1,875.00
	Francs position (joint)	Fcs 32,345		

NEW YORK SELLS 100,000 CZECHO KRONEN AT 2.00

Dr	Czecho kronen position—(nostro)	Cz Kr 100,000		
	Cables bought payable (joint accounts)		$1,875.00	
	Cables sold receivable (joint a/c sales)		$2,000.00	
	Czecho kronen position—joint account .	Cz Kr 100,000		
Cr	Berlin bank joint a/c "our lines"	Cz Kr 100,000		$2,000.00
	Böhm. escompte bank (nostro)	Cz Kr 100,000		$1,875.00

BERLIN SELLS FRANCS 32,345 AT 4.00

Dr	Berlin bank joint a/c "their lines"	Marks 129,380	
	Francs position—joint account	Fcs 32,345	
Cr	Berlin bank joint a/c "their lines"	Fcs 32,345	
	Mark position joint a/c	Marks 129,380	

**The amount of francs to be bought is ascertained as follows—Calculate dollar amount needed to buy marks 125,000 at 1.50 equals $1,875.00; convert $1,875.00 into francs at the current rate of exchange, which is 5.80, equals francs 32,345 (approximately).

If all transactions are settled the same day the entries can be made as follows:

1	Berlin bank (joint a/c) "their lines" ....Cz Kr	100,000	
2	Berlin bank (joint a/c) "our lines" ....Fcs	32,345	$1,875.00
3	Accounts receivable		2,000.00
4	Berlin bank (joint a/c) "their lines" ....Marks	129,380	

1	Berlin bank joint account "their lines" .....Marks	125,000	
2	Crédit Parisien (nostro) .....Fcs	32,345	$1,875.00
3	Berlin bank (joint a/c) "our lines" .....Cz Kr	100,000	2,000.00
4	Berlin bank (joint a/c) "their lines" .....Fr	32,345	

To afford a clearer view of the various transactions, the *contra* entries to the position book were omitted. In actual practice these *contra* entries will be made for the totals appearing in the respective columns on the daily record of "cables bought" and "cables sold" (entry 1 will be made under "cables bought"; entries 2, 3 and 4 under "cables sold" on the respective sheets.

As will be seen by reference to form 2, the foreign currencies pair off in the debits and credits—"our lines" show a profit of $125.00 and "their lines" a profit of Marks 4,380.00.

For the purpose of demonstration the most complicated set of transactions was selected. As a rule the purchase of the amount in foreign currency is subject to draft immediately and is not included in the *nostro* balance of a third bank unless the party to the joint account, which is supposed to sell the currency, acquires it for its own use.

It must also be understood that the above entries are not made simultaneously, as the joint account can remain long or short for an indefinite period.

To reduce the amount of postings to general ledger control accounts and to the position book, especially designed daily record sheets can be installed so that all control accounts and position sheets will contain few entries.

If a joint account is to be closed, all cable and other charges, as well as interest items, are entered by both lines, unsettled transactions carried forward as a balance and the resulting profit or loss is transferred to the *nostro, vostro* and profit and loss accounts. The following entries would apply to the accounts containing the transactions described above:

Dr	Berlin bank—joint a/c—"our lines"	$10.00	
Cr	Cable expenses		$10.00
Dr	Interest account	.55	
Cr	Berlin bank (joint a/c) "our lines"		.55
Dr	Berlin bank (joint a/c) "our lines"	115.55	
Cr	Berlin bank—vostro		57.78

Cr	Profit and loss—joint accounts				57.77
	To close the joint accounts on "our lines" of April 30, 1919				
Dr	Berlin bank—nostro	Mks 2140.39	32.10		
	Marks position (joint account)	Mks 4380.00			
Cr	Marks position—nostro			2140.39	
	Berlin bank (joint a/c) "their lines"			4380.00	
	Profit and loss on joint accounts				32.10
	To close the joint account on "their lines" as per their letter dated April 30, 1919, viz:				
	Debit bal. on a/c	Mks 4380.00			
	Cr. for cable charges	Mks 100.00			
		Mks 4280.00			
	Debit for interest	Mks .78			
	Net debit balance	Mks 4280.78			
	Less—Berlin share 50%	Mks 2140.39			
	Our share	Mks 2140.39			
	Credit P & L for Mks 2140.39 at 1.50	$32.10			

The entries posted to forms 1 and 2 will show that, by the above method, a clear view of the position is furnished for the trader and that the various transactions can be easily followed through their successive stages on the joint ledger account.

Treatment of Overhead when Production is Below Normal*

By C. B. Williams

Treatment of overhead when production is below normal is a timely subject, not only and not merely because this is a period of sub-normal production, but because it is time that we determined and adopted better methods of treating overhead expense. This statement assumes that our present methods of treating overhead are incorrect and it is my belief that, to a considerable extent at least, this is true.

There is an old proverb which says: "There is no great loss without some small gain." One gain that may be derived from the present period of sub-normal production, one that would accrue both to the accountant and to the business man, is the adoption of better methods of determining costs, especially overhead costs.

The present period of sub-normal production is compelling a searching investigation of our cost-finding methods in order to determine how they may be adjusted to a period like this. If we consider what is really at the bottom of this investigation, we must come to the conclusion that our former methods of handling costs, particularly overhead costs, have been wrong. Certainly, a thing which is right in principle today does not become wrong in principle tomorrow because conditions change. If in the present period of sub-normal production it is found that our method of treating overhead will not apply, then we must assume that, although it appeared to be correct in normal periods, it was, nevertheless, wrong in principle.

Frequently errors in our methods do not stand out prominently because, under conditions such as existed in the past, we obtained fairly acceptable results from the methods we were using, in spite of their errors. This has probably been the case in the treatment of overhead. If we can accept this as true, the real subject of our discussion is the proper treatment of overhead at any time.

Many business concerns and some accountants have adopted methods such as I shall propose and therefore have no especial problem growing out of the change in business conditions. It is not necessary to find a new method, but rather universally to adopt a method which has stood the test of changing conditions.

*A paper read at a regional meeting of the American Institute of Accountants, Detroit, Michigan, April 8, 1921.

Because the time is limited and we cannot discuss all kinds of business, permit me to discuss this question from the standpoint of a manufacturing business, because that business probably presents the most complex problems and also because it will be the business most prominently in our minds when we discuss overhead distribution.

In a manufacturing enterprise we first invest capital to provide a suitable working place and suitable machines and equipment with which to work. As a preliminary to production, we provide a force of superintendents, foremen and other supervisors, and we are then ready to employ workmen and to start production.

Let us see what these expenditures mean. A suitable place in which to work requires heat and light. It must be kept clean and in repair. It must have the services of watchmen and janitors. Expenses are incurred for taxes and insurance, and the plant depreciates. Machinery and other factory equipment consume power and a certain amount of supplies. They must be kept in repair. They involve expenses for taxes, insurance and depreciation.

Superintendents, foremen and other supervisors, who form the nucleus of the organization, must be kept together, regardless of the volume of production. All this means a certain outlay which is based on the supposed normal production of the plant, but the expense goes on at about the same rate whether the plant produces below or above the supposed normal.

When a new enterprise is contemplated, one of the chief considerations is the probable volume of business. In fact, almost every other decision depends upon this. The expected profit per unit is based on a certain volume and, of course, this expected profit is the difference between an expected cost and a known or estimated selling price. In the mind of the investor, therefore, every calculation is based on the expected normal volume of business over a period of years.

Most accountants have been in the habit of considering one year as the proper accounting period. It many cases the accounting period has been fixed as a single month. May I venture to suggest that in this we have sometimes been mistaken? Capitalists do not invest their money and erect a manufacturing plant with any idea that it is to be a yearly proposition. They do not invest their money with the sole thought of getting a particular rate of return in any one year. Rather do they look to a satisfactory

return over a period of years; and this return is predicated as much on the normal cost of production as on an expected selling price.

This may be very well illustrated in the case of the establishment of a certain large department store, the name of which you would recognize were I to mention it. This store was started with the expectation that it would not show a profit for the first three years, and a large sum was set aside to cover the losses expected during the period in which the store was being established and a definite line of customers being obtained. Certainly, the amount set aside to cover these expected losses indicated that the owners were considering their investment from the standpoint of a period of years rather than a single year. They surely would not consider the excess of expenditures over receipts in the first year as a loss. Rather would they consider it an investment, which was expected to be returned in succeeding years. An accountant would not have thought of closing the books of the concern at the end of the first year, writing off the difference between income and expense as a loss and showing a deficit on the balance-sheet.

We have this problem in every new concern and we commonly set up what we call "organization expenses," which are written off during a period of time, the length of which may be more or less influenced by subsequent profits. Does this not prove that we are not entitled to consider the costs of one year independently of the costs of other years?

If perchance you disagree with the foregoing, permit me to give an illustration with which I am sure you cannot disagree.

In making income-tax returns, you doubtless have wished you could find a way to make the loss of one year offset the gain of another year. You have said that it was not fair to industry to tax heavily a profitable year which might come between two losing years. This has frequently been cited as one of the inequities of the income-tax law. If you have had such an idea it means that you have believed that a single year should not be considered independently of other years. If the foregoing be true about both general accounting and income-tax returns, it is equally true about cost accounting and that particular part of cost accounting which deals with overhead expense.

We have said that the management invests money in plant and equipment and hires a force of supervisors and that supervision expense goes on at about the same rate regardless of the

volume of production. The investment is made to provide the producing machine which, over a period of years, is expected to give a satisfactory return on the investment. This being the case, are we not entitled to consider overhead from the standpoint of a reasonably long period of time, rather than from the standpoint of a single month or year?

The next question is how overhead expense should be distributed to equalize it over periods of unequal production. This can be done by using normal overhead rates. Normal overhead rates are established by determining the expenses of a normal period and by establishing a normal divisor for the same period. Ordinarily, the longer the period covered, the more satisfactory the result. The period should be long enough at least to embrace one complete cycle of normal, below-normal and above-normal production. The divisor can be any of several bases commonly used for distributing overhead, such as weights, quantities, direct labor, man hours or machine hours.

Let us assume that the business is one in which productive man hours is a correct basis. From past records, together with our knowledge of present and future conditions, we can determine the probable hours for the period or we can use engineering estimates. The number of hours divided into the expense would give the rate per hour for overhead which would be applied under normal conditions. It is, of course, necessary that a factory cost system be in operation and that the productive hours be collected in such classifications as would be required for overhead distribution purposes. The normal rates established for the departments or machines could be applied to the time cards or to the cost sheets or in any other way that might fit the cost system in use.

In establishing normal rates we must be careful

(1) That we get a proper analysis of the expenses over a sufficiently long period; and

(2) That we make provision for increases or decreases which may be brought about by a change in the policy or through a difference in market conditions; and

(3) That we establish the number of normal hours at a correct figure.

"Normal hours" does not mean possible working hours. If we assume that the number of working days in a year is 300, excluding Sundays and holidays, and that the working day is 8 hours, our

possible working hours per man would be 2,400. This figure should be reduced to allow for various interruptions which will occur even in the best organized plants. It has been my observation that about 75 per cent. to 85 per cent. of the possible working hours will ordinarily be found to be normal for most industries. If we assume 80 per cent. to be the correct figure, our normal per man would be 1,920 hours a year. In a department of 50 men this would be 96,000 hours. This figure, divided into the normal expense of the department, would give us the rate per hour to be used.

Someone may say: "But suppose you do not have your normal rate correct?" In reply I would say that I have heard of accountants making mistakes, and it is entirely possible that they may err in setting these rates, but that is no reason why the method should be condemned any more than a profit and loss account should be discontinued because sometimes it is incorrect.

We must not lose sight of the importance of recording the actual expenses. We should make up schedules as we have always done, showing the expenses actually incurred, but we should apply overhead according to the normal rates, and we should present for consideration of the management the difference between the actual expense and the applied expense. A study of the difference between the actual and the normal expense is, of course, of great importance.

Normal rates must always be considered in the light of present conditions. A normal rate does not mean a fixed rate. As conditions change, the normal will change, as, for example, an increase in the rate of wages would change the amount of non-productive labor in the department and thus affect the normal rate. Again, a change in the method of processing might change the hours required and thus affect the normal rate.

In our accounting procedure we must have an account analogous to a reserve, for which I might suggest the name "undistributed expense." We would charge the various costs and credit this undistributed expense account with overhead at our normal rate per hour. We would collect for analysis purposes the regular expense in the expense accounts and would transfer the total, probably at the end of each month, to the debit side of the undistributed expense account. In a period like the present there would be a constantly increasing debit balance in this account, and this balance would measure the extent to which the factory operated below its normal capacity.

In analysis of the business, executives should consider first the amount of profit made on the goods manufactured and sold and then deduct the loss incurred which is due to a lack of sufficient production, thus showing the net result of operating the plant, which might be either profit or loss.

In periods when the plant operates above its normal capacity the undistributed expense account would accumulate a credit balance; but again the management should analyze its business by first determining the profit made on manufacturing operations, considered from a normal standpoint, and should then add to this the profit made because the company was able to operate the plant beyond what might reasonably have been expected.

One of the chief functions of accounting is to furnish useful information. If we make a profit and loss statement for a year like 1920, showing a loss of $25,000.00, how much information does it furnish? Probably business was quite steady during the first part of the year and gradually became poorer during the latter part of the year. Almost without exception, executives would ask how much of the loss was due to a slump in business. How often you have wished you could answer that question, and yet how easily it could have been answered if the costs had been kept on a normal basis. Then, instead of saying the loss was $25,000.00, you could say the profit on the business which was done was $40,000.00, but the loss due to the falling off of business was $65,000.00, the net result being a loss of $25,000.00.

In a good year we might show a profit on the business done as $80,000.00, to which should be added $45,000.00, because we operated our producing machine beyond its normal capacity, the net result in this case being a profit of $125,000.00. This viewpoint is a fair and reasonable one, in the interest of both the manufacturer and the public. The public should always be willing to pay a price based on normal working conditions. If the plant operates below its normal capacity, the public is quite willing that the management should bear the loss. It should likewise be entirely willing that the management should obtain the extra profit due to operating the plant beyond normal. This is in the public interest, because, if we pursue a policy during periods of depression that will force the financially weaker concerns into bankruptcy, we shall thereby eliminate the healthy competition which stabilizes prices in normal times.

Another advantage in treating overhead in this way is that it gives the management some idea of the amount of loss which might be eliminated by increasing the volume of business. Under older methods of accounting the manufacturer was at his wits' end to know what to do to safeguard his interests when business could not be readily obtained. In spite of the accountant's contention that all the expense incurred was a proper charge to his costs, he realized that if he attempted to raise prices it would only result in a further loss of business because the public would not buy at the increased price. Therefore, if he did anything, he arbitrarily lowered his price in the hope of getting business, without having any idea what the correct price should be or what the effect would be on his financial showing. Under the method of establishing normal rates, he is able to know exactly what the public ought to pay for his goods and exactly what he loses because he is not turning out a sufficient volume. From an analysis of his costs he can tell how much he can lower prices in order to get an increased volume of business and thus absorb some of his overhead expense. Also because he has exact knowledge about the loss which he suffers, he is more apt to analyze factory conditions and to decide at what points economies may be effected.

I venture even to suggest that in some industries part of the undistributed overhead expense at the close of a year, if it can be shown to be due entirely to a lack of business, could, with propriety, be carried forward into succeeding years to be absorbed during periods of full production. This would be especially true if the business were one which expected to have varying volumes of production in different years. In such a case the normal productive hours should be established at a figure which would be an average for several years. In making a report, this undistributed expense should be shown as a deferred charge and be fully explained in the balance-sheet, so that no one could be misled.

Some may contend that this is not a conservative policy. Is it not better to be right than to be conservative? The mere suggestion that a certain way is a more conservative way implies that there is an unknown quantity and that, not knowing the right thing to do, we are trying to play safe.

The foregoing is submitted as a basis for discussion. There are always right and wrong ways of doing a thing. Through analysis and study of these ways and through discussion and the conflict of opinion we determine the right way.

Reconstruction of Railroad Property*

By W. W. Vincent

It is quite generally known that accounts of railroads and other transportation companies are kept in accordance with rules and regulations prescribed by the interstate commerce commission. These rules and regulations are issued by the commission in pamphlet form and explain fully how each item of revenue, expense and capital addition should be credited and charged. The pamphlet relating to capital additions, which is technically known as *Classification of Investment in Road and Equipment,* contains under the caption of "Reconstruction of Road Purchased," the following:

"When a road is purchased and the fixed improvements acquired are in such a physical condition that it is necessary substantially to rebuild the road in order to bring it up to the standard required by the carrier, the cost of such rebuilding shall be charged to this account."

A footnote to this paragraph instructs that when the work of reconstruction is completed, the cost thereof shall be transferred from this account to other appropriate primary accounts of the classification.

A situation such as here described usually arises when a railroad is purchased at foreclosure sale, though it is not confined to such cases.

The difficulties to be encountered in properly accounting for the expenditures of a railroad property which is being reconstructed lie in the differentiation between ordinary maintenance expenses (profit and loss items) and expenditures of rehabilitation (property items). Because a large part of such expenditures is so closely related and the work often performed simultaneously by the same gangs of workmen, it becomes necessary to allocate the charges more or less arbitrarily. For this reason, it becomes essential that the accounting instructions and records be carefully considered and the subsequent reports closely scrutinized to see that the latter are prepared in accordance with the instructions.

In any large comprehensive plan of reconstruction, such as is here contemplated, the company will find it necessary or con-

* A thesis presented at the November, 1920, examinations of the American Institute of Accountants.

venient to make new additions or betterments to the property, so that expenditures will require segregation into four primary groups, as follows:

(a) Additions and betterments, to which should be charged the cost of new additional facilities and structures not replacing facilities and structures which existed prior to acquisition of the property.

(b) Rehabilitation of road, to which should be charged the cost of replacement and restoration of roadway and structures to an efficient standard of operation.

(c) Rehabilitation of equipment, to which should be charged the cost of heavy repairs to equipment acquired with the property to restore it to an efficient standard and also the cost of converting such equipment from one class to another.

(d) Operating expenses, to which should be charged expenditures equivalent to those which would be required for the upkeep of the road under normal conditions or, in other words, the maintenance requirements to keep the road in first-class operating condition.

The proper allocation of the expenditures applicable to additions and betterments will, perhaps, present few difficulties, inasmuch as the work will be performed apart from the work of reconstruction. Therefore, this paper will be restricted to a brief discussion of some of the more vexing problems arising from the segregation of rehabilitation expenditures from those of ordinary maintenance and upkeep.

Usually, the first step (a requirement of the interstate commerce commission) is the preparation of a comprehensive statement (budget) of the estimated amount necessary to reconstruct the property. This budget is followed by work orders covering specific jobs which should be prepared in such a manner as to show full particulars of the work to be undertaken, the location, estimated cost divided between labor and material and the distribution of such cost between maintenance, rehabilitation and additions and betterments. These distributions should be carefully scrutinized by the accountant because operating officers by whom the work orders are prepared find it difficult to forego the temptation to undercharge maintenance and thereby temporarily to make good operating records at the expense of rehabilitation.

Rehabilitation of Road

Road work may be performed by special gangs of men or by an augmented section force or by both. In the first case, the

men would be assigned to rehabilitation work specifically and, accordingly, there would be little difficulty in properly accounting for the labor and material expended, but, when the work is performed by section forces, the allocation of the expenditures as between rehabilitation and maintenance is made by charging the former with the wages of the force employed in excess of the normal force required properly to maintain the road under normal operating conditions, on the principle that such excess is required to make good the deficiency in the ordinary maintenance of the road prior to date of acquisition. As section foremen could not be expected to perform any complicated accounting work, the more practicable way to achieve this result would be to make the allocation in the head or division office by reducing the amount of the foremen's labor distribution reports by the percentage which the excess over the normal force bears to the entire force employed, each section being treated separately. The reduction thus determined should be charged to rehabilitation and the balance, representing the expense of the normal force, to operating expenses.

The proportion of cost of tie renewals is computed by charging rehabilitation with the percentage of excess of the estimated tie renewals required to bring the property up to a normal standard over the estimated renewals under normal conditions. The latter figure is obtainable by ascertaining from the records the number and kind of ties in the track and their estimated life.

All labor and material expended in widening cuts and fills, protection of banks, grade revision and change of line and ballasting on a comprehensive scale, when undertaken as part of the rehabilitation plan, that is, to bring the property up to a certain standard of efficiency, are chargeable to rehabilitation. Likewise, all expenditures for replacements and general overhauling of structures, such as bridges, trestles and culverts, station buildings and fixtures, and also relaying rails and fastenings, replacing frogs and switches and heavy repairs to right-of-way fences, interlocking and signal apparatus and telegraph and telephone lines, as well as the cost of reconstruction or enlargement of existing terminal yards and facilities, are chargeable to rehabilitation. The cost of ordinary repairs and upkeep of these structures and facilities should be charged to operating expenses; and care should be taken to insure that proper credit is made for the scrap or other value of material released in rehabilitation work.

When a large quantity of gravel or rock is required for ballasting the company may operate its own gravel pits or quarries, and in such event it will be found desirable to open a ledger account with each pit or quarry, to which should be charged (a) the cost of the land in excess of its estimated value after the gravel, stone or other material has been removed, (b) the cost of clearing and stripping the land, (c) the cost in excess of salvage value of rails, ties and other materials used in constructing tracks to and in the gravel pit or quarry and (d) the cost of labor and train service employed in producing and loading the material. Having the costs as thus ascertained and knowing the estimated quantity of ballast to be removed from the pit or quarry, the cost per yard of the quantity produced monthly is easily ascertained. To this cost should be added, of course, the cost of transportation from the pit to the place where it is to be used and the cost of putting the material under the tracks.

Ballast is transported generally by the company's own work trains and, as the interstate commerce commission recognizes the propriety of including as a charge to capital additions a "fair allowance representing the expense to the carrier of such transportation in transportation service trains over the carrier's own line," it would appear that, in addition to the actual cost of operating work trains, including supplies and maintenance of equipment in work-train service, the company should charge against this service a fair rental for the equipment in this service, such rental being sufficient to cover depreciation and interest on the value of equipment employed.

Rehabilitation of Equipment

Expenditures for repairs and reconstruction of equipment should be apportioned between rehabilitation and operating expenses, as follows:

1. All repairs due to accidents which occurred prior to the date of acquisition by the new company should be charged to rehabilitation of equipment under the appropriate subdivisions of locomotives, freight cars, passenger cars, work equipment, etc., and all such repairs due to accidents since that date should, of course, be taken up in operating expenses.

2. All minor repairs to equipment which has made mileage subsequent to date of acquisition by the new company should be charged to operating expenses. To avoid confusion as to what should be regarded as minor repairs, it will be found advisable

to set a minimum charge to rehabilitation, such as, for example, the expenditure at one shopping of, say, $100.00 on locomotives, $50.00 on passenger cars, $25.00 on freight cars.

3. All expenditures, regardless of amount, for repairs and rehabilitation of equipment which has made no mileage since date of acquisition by the new company should be charged to rehabilitation of equipment.

4. All expenditures in excess of the minimums established by the company for repairs and rehabilitation of equipment, which has made mileage since date of acquisition by the new company, should be apportioned between rehabilitation and operating expenses on the basis of the relative mileage made by the individual piece of equipment in each period (before and after acquisition) since the date of the last repairs of the same class. The proportion thus determined for the period prior to date of acquisition should be charged to the appropriate equipment account under rehabilitation of equipment and the proportion determined for the period subsequent thereto should be charged to operating expenses.

5. Expenditures in converting equipment from one class to another, such as the conversion of freight cars into work equipment, passenger cars into business cars, cabooses, etc., appear to be proper charges to rehabilitation, on the supposition that, in those cases in which such equipment has been in service since date of acquisition by the present owning company, provision has been made for the ordinary running repairs by a charge to operating expenses.

It should here be said that work orders or other documents authorizing expenditures for rehabilitation of equipment should record the individual numbers of the locomotives or cars to be overhauled and the expenditures should be reported and recorded accordingly, so that data necessary for insurance purposes, the proper calculation of depreciation, etc., may be available.

The books in the accounting department should record the particulars of each work order and the expenditures against it. A convenient form is a loose-leaf, punched for binding, with space at the top for particulars of the work to be performed as shown on the work order and the amount authorized therefor. Following this, space should be provided for subsequently recording the expenditures chargeable to each of the three primary accounts, viz., additions and betterments, rehabilitation and operating expenses. These charges, under each caption, should show in parallel columns (1) labor and (2) material and other items. It need hardly be said that space should be provided in the form

for showing references to documents—journal entries, material and labor distributions, etc.—from which the entries are posted.

Some companies, in accounting for the monthly expenditures, adopt the conservative policy of first absorbing that portion of the work chargeable to operating expenses and thereafter taking up the portion to be capitalized. Other companies apportion the monthly expenditures between capital and operating expenses on the basis of the relative proportion of the estimated cost of the work.

As stated at the outset, the interstate commerce commission requires that upon completion of the rehabilitation work the entire cost thereof be transferred from the account "reconstruction of road purchased" to the other appropriate primary accounts of the *Classification of Investment in Road and Equipment,* and this requirement of the commission should not be overlooked in the accounting instructions.

Overturn Sales Tax on Commodities*

By B. S. Orcutt

There is a great deal of underbrush to be cleared away before the outlines of a sound and sane overturn sales tax can be clearly discerned. The advocates of a sales tax do not, unfortunately, all talk the same language, and the opponents of any uniform overturn tax joyfully jumble all the divergent views advanced into a straw-man of their own conception and then proceed to try to set it on fire. But it won't burn. Part of it is non-inflammable. This non-inflammable material in the straw-man is the suggestion for a tax at each step in the sale of commodities by any one to any one.

By commodities I mean just what the dictionary says—"goods, wares, merchandise, produce of land and manufactures."

By a tax at each step in the sale of commodities, I do not mean a tax on the gross receipts of everybody engaged in any activity. I mean a tax so levied that the vendor of commodities shall become the collector of a tax measured by the price agreed upon with the purchaser and compulsorily passed on to the purchaser by means of a special charge, as a tax, specifically billed as such, on the invoice rendered to the purchaser.

To approach the situation in the middle, I mean that if John Smith is a manufacturer of overalls, he must buy his cloth, his thread, his buttons, his buckles, his drill, from various people who manufacture these things. He buys 1,000 yards of denim from John Doe at 30 cents a yard. The bill is $300, plus, at 1 per cent., $3 tax collected from Smith by Doe and turned over to the government by Doe. He buys 10 gross of buttons from John Jones for $8. The bill is $8 plus $.08 tax. He buys from John White a gross of buckles for $2. The bill is $2 plus $.02 tax. He buys from John Green x spools of pocket drill for $15. The bill is $15 plus $.15 tax. He buys from John Brown x spools of thread for $7. The bill is $7 plus $.07 tax.

Tax is Levied on Purchases

The total cost of material for a gross of overalls is then $335.32, of which $332 is the invoiced cost of material and $3.32 is the invoiced tax collected by the vendors of cloth, thread, buttons, buckles and drill, and turned over to the government.

*An address delivered at a meeting of the New York State Society of Certified Public Accountants, April 11, 1921.

John Smith goes about his business of manufacture in the confidence that he bought this material at the best possible price and that every competitor has paid the same tax rate on material. Smith sells his gross of overalls for $864, or $6 each. He bills the overalls to the retailer at $864 plus $8.64, or a total of $872.64, of which Smith acts as government collector of $8.64.

The tax on Smith has been $3.32, if there was any tax at all. It has been a consumption tax pure and simple, measured by the amount of his purchases, not of his sales. Every competitor has been obliged to pay approximately the same tax, varied slightly by his skill or luck in buying. The tax has gone into the cost of goods, as has labor, freight and overhead. Smith and his competitors have each been obliged to make their sales prices irrespective of their obligations to collect a tax, and what they do collect goes to the government and is not a percentage paid by them on their gross receipts.

Before the materials got to Smith a similar tax was paid on previous processes and was all included in the $3.32 that Smith paid. When the manufactured product leaves Smith, the retailer pays the tax of $8.64, or $.06 on each garment. When the retailer sells to the poor, downtrodden laboring man at $8 a garment, the tax becomes $.08. It doesn't interest me particularly whether the retailer collects the $.08 tax from the eventual consumer or absorbs it himself. My object is to make it a consumption tax all the way down the line to the retailer, and to consider it as nothing in the world except a consumption tax.

The words "consumption tax" sound fearsome to the politician, who still talks glibly about the tariff. The tariff tax is a consumption tax pure and simple when applied to articles not produced in this country. It is, like the excess-profits tax, a consumption tax plus, when applied to articles that are produced in this country. All the present miscellaneous sales taxes are consumption taxes.

There "ain't no sech animal" as a tax that nobody pays. A proper consumption tax is a tax that is passed on to the final consumer exactly as it is levied, not augmented many times like the excess-profits tax, and not absorbed by business like the imaginary tax that sends shivers down the spines of unduly alarmed middlemen.

Now all this is different from a retail sales tax like the present tax on jewelry or luxuries or ice cream. It is different from a

tax on gross receipts that may be absorbed or pyramided at the option of the dealer. It is different from a tax on services or on the transfer of capital assets. It does not conflict with the long established special excise taxes on tobacco and spirits, with the stamp taxes on documents or with the income tax.

Relation to Other Taxes

A tax on overturn sales of commodities cannot be a direct substitute for the excess-profits tax. The two taxes are not comparable except in the one feature of being an ultimate cost to the consumer, for, of course, without profits derived from the consumer, there is no excess-profits tax. Abolition of the excess-profits tax involves readjustment of surtaxes and of corporate normal tax to bring about equality between stockholders and non-stockholders. This is a problem by itself that would be as much a problem were there no tax other than the income tax.

Conversely, the clash between special consumption taxes and a general consumption tax would still exist were there no income tax and were all revenues derived from consumption taxes.

As a matter of fact, practical considerations make necessary not only an income tax and a consumption tax, but also certain privilege taxes, which again are in a class by themselves. The problem with respect to classes of taxation is to make them balance properly.

There are now special consumption taxes on some 100 different articles, laid at different rates and collected by various methods. The resulting confusion is endless, the leakage is unknown, and in many cases the revenue derived is negligible and the cost of collection excessive. Some of these taxes are levied on the producer and some on the consumer.

In neither class is there any rhyme, reason, coördination or guiding principle in the selection of the articles taxed or in the rate exacted. Admittedly, the entire scheme was an emergency recourse and is illogical, unfair, absurd and administratively chaotic as a permanent basis of taxation.

In practice, the dispenser of an ice-cream soda sets a price of say fifteen cents for the article and then collects the tax of two cents from the consumer. All consumers pay that two cents. It does not enter into the overhead or the expense of conducting the business. It is a tax that "runs with the goods." The element of competition between dispensers is eliminated so far as the tax

is concerned. One dealer may use a larger glass than his competitor, or he may use a more expensive syrup, or he may charge 13 cents instead of 15 cents for his concoction, but the tax remains constant at the rate established by law. It is paid without relation to his income. The competition between himself and his neighbor remains just as it would be were there no tax.

What can be done with one article on one sale can be done with many articles on many sales. What can be done with an excise tax on ice-cream soda sold to me, or with a tariff tax on coffee, can be done with any article sold by anybody to anybody, and it can be done much more simply and efficiently and justly.

Assume that all these irrationally unrelated, irregular, pestiferous, specially-selected excise taxes were wiped out and a general tax of, say, 1 per cent. were levied on all overturns from the producer to the consumer, with the special and distinct proviso that the tax is in addition to the sale price and is to be so invoiced on the bill. How can such a general tax have any influence on competition or be inflated to consumers or work any injustice as between one producer and another or as between one consumer and another?

With compulsory invoicing of the tax, all the labored arguments as to percentage charge against net income fall to the ground and the carefully worked-out tables to prove an imaginary point become a joke.

Simplicity of Administration

Nobody has the effrontery at any place or any time to say that there should be no sales taxes. The opponents of a general commodities overturn tax not only admit the necessity of a sales tax in some form, but they urge additions to the present long list of special sales taxes. In the same breath they gasp with horror at the idea of a consumption tax; they nearly strangle over the thought that the consumption tax is not a consumption tax at all but a tax on capital; they see endless confusion in determining gross receipts, and extreme simplicity in determining net income, although net income can be derived only from gross receipts.

The very first line on the working schedule of every income-tax blank—corporate, partnership, individual, fiduciary—calls for a statement of gross sales. The entire return from any mercantile or manufacturing operation is built up on that line. If the result set forth in that line is wrong, the whole complicated

structure that follows must be wrong. All that is necessary for the collection of an overturn sales tax is that one line.

There is no suggestion anywhere to abolish the income tax. The income tax cannot be collected without that one line on the return. How a dealer can so confuse his books as to make that line false for the overturn tax and fool-proof for the income tax is entirely beyond my imagination.

Useless Personal Bickerings

It is unfortunate that advocates of a sales tax have allowed themselves at times to display peevishness. Because Professor Adams and Professor Seligman and Professor Montgomery oppose a sales tax, some of the sales-tax proponents allege that the committees of congress and the treasury department are under the hypnotism of Dr. Adams, a doctrinaire; that every audience is swayed by the eloquence of Professor Seligman, a theorist; or that all accountants are opposed to simplification of the law in order that Colonel Montgomery may be "soaked" for an outrageous income tax. My observation and experience has been that accountants have unselfishly and consistently worked for simplification.

This does not blind me—a theorist only myself—to the equal injustice of Colonel Montgomery's charge that advocates of an overturn tax are those "whose knowledge of taxation is limited and who are concerned solely in selfish attempt to pass their burden on to others less able to pay." It does not justify Congressman Frear's accusations that because Otto H. Kahn "wabbled and wavered" over the subject of an overturn tax, his final decision in its favor was influenced by selfish motives.

All these pin-prickings are unworthy in a discussion of a big, elemental, vital question that concerns the welfare of every resident of the United States, and therefore of the United States itself. Why not get down to brass tacks?

Sales Taxes as They Are

To get back, therefore, to the same brass tacks: if a druggist can compete with a fellow druggist in the sale of Pluto water at 40 cents a bottle while compelling me to pay for a two-cent stamp as a tax, there is no reason why every dealer in every article of commerce cannot be made to collect a tax on his sales in the same manner. The main difference is that where goods are sold in bulk, as must be the case down to the retailer, the sales sheets

must show the transactions entire, and the invoice should be made to show the transactions with respect to each purchaser. There is nothing to force the druggist to sell the stamp to me. If he was not afraid I would peach, he might let me have the Pluto water for 40 cents and forget the 2-cent stamp. In the general process of distribution in bulk this forgetfulness could not be.

Dr. Adams, while admitting the difficulty of administration of special taxes on medicinal articles, fountain drinks and "luxuries," and even urging their repeal, still insists on the superiority of special taxes on selected articles of general consumption in preference to a general tax on all articles of consumption. Much as I respect Dr. Adams, I must differ from him. It is one of the annoying weaknesses of the present hodge-podge of sales taxes that no force of treasury employees can ever check up the tax properly. The constantly reiterated assertion of Dr. Adams that a simple, omnibus overturn tax would impose added confusion on top of a present confusion which it is intended to abolish is one of those things no fellow can understand.

Another of Dr. Adams's obsessions is that an overturn tax would favor large multiple-process concerns as opposed to a series of single-process concerns. As against Dr. Adams's theory I would give far greater weight to the testimony of practical business men. Charles E. Lord, one of the largest cotton manufacturers in the United States, ought to know something about his own business.

The Phantasma of Monopoly

Mr. Lord finds that in the case of single-process textile concerns whose completed product reaches the consumer at, say, $4.50, the combined tax from that on the raw cotton handled twice (by grower and factor), on the spinning, the dyeing, the weaving, the jobbing and the retailing is 12 2-5 cents, or less than 3 per cent. of the consumer's price. In the case of the single-process concern the saving in tax would be about one cent, or less than 1-3 of 1 per cent. on the final price.

In the case of the wood pulp industry the total competitive difference between a large organization owning its mines and forests, making its own chemicals and carrying on every process up to the finished paper, and single-process concerns buying wood pulp and manufacturing paper is only about ⅞ of 1 per cent. Similar figures are reached in other lines of business which have been examined.

Practical considerations like these ought to lay the ghost of monopoly fostered by encouragement of combinations through an overturn tax.

Another bugaboo is the newsboy, the corner fruit man, the small farmer. How, it is asked, are you going to keep tabs on them? It is not necessary. It is proposed to differentiate this overturn tax, which is intended to be practical, from impractical taxes like some of those now on the statute books. That can be done by relieving from responsibility, as collectors of the tax, vendors who do not sell more than $500 worth of goods in a month or $6,000 in a year. If the poor newsboy or small tradesman has an overturn of $500 or more in a month, it is high time that some method be found to force him to keep track of his business by keeping at least a cashbook. It is safe to say that the resultant benefit to him would be far greater than the cost to him of the tax. As for the poor farmer who sells less than $6,000 of produce in a year, it is difficult to feel deep sympathy for the hardship of the tax on him. He not only should, but I venture freely to say that he would, get the same price for his wheat as his neighbor who sold $10,000 worth. The only difference is that he would not have to turn in to the government the 1 per cent. collected from the elevator company.

The Real Question Involved

Another screen of underbrush has been cultivated by advocates of a sales tax who talk about it as a substitute for the excess-profits tax. It is nothing of the kind. It cannot be, in the very nature of things. In so far as an overturn tax, by an equitable and systematic distribution of the consumption-tax burden, could without injustice produce more net revenue than is produced by the present chaotic sales taxes which it is designed to replace, it would relieve the income-tax situation.

The excess-profits tax is really nothing more nor less than a surtax on corporations, balancing roughly the surtax on individuals. Both the excess-profits tax and the individual surtaxes are higher than their productivity point. General consensus now appears to be that 32 per cent. or 33 per cent. is about the maximum productivity point of individual surtaxes. The problem with respect to corporation taxes is to find the corresponding point and method. It is an entirely different story. It has nothing to do

with an overturn sales tax, except as rates of income tax may be adjusted to the productivity of the sales tax.

The real question with respect to the overturn tax is whether or not it would be more simple, more just, more easily administered, more productive than the present chaotic sales taxes—with prospect of additional chaos and added injustice following an addition to the list of arbitrary levies. To that I can see only one answer—Yes.

It would provide a base for a large portion of the government revenue more tangible than profits and income; not a base necessarily larger than the present base of special-sales taxes, augmented by still more special taxes, but a base firmly determined in equity to all.

It would rest fairly as between citizens. The one who spends the most would pay the most in this particular tax.

It would not be a sepcial tax on the man who must buy medicine for his children or on the stenographer who buys an ice-cream soda for her luncheon.

It would encourage thrift instead of waste.

It could not increase the price of commodities beyond the amount of the tax itself.

It would be simple in collection and in auditing for both government and taxpayer—or more properly, in the latter case, the drafted tax collector.

It would bring the collection of a substantial part of the revenue up to date.

It would be sure in its incidence, simple in its application, economical in its collection, and would have all the attributes of just taxation.

When this base has been supplied, you can adjust your individual and corporate income-tax rates to fit the situation and maintain the proper balance.

Accounting for the Nail and Tack Industry*

By George N. Descoteaux

Among the accounting necessities of the nail and tack industry, the one which stands out pre-eminently is that of a cost system or plan for accurate cost finding. The wide variety in kinds and sizes of the product renders any rule-of-thumb methods entirely inadequate for intelligently fixing selling prices in advance of sale or for furnishing bids on contracts. In order to determine the price at which each size and style of the product should be sold, the costs must be built up for each style of head, length and kind of nail or tack produced; and this can be done only where trustworthy information is available. Trustworthy information as to costs by departments and accurate records covering the elements by which costs are applied can be obtained only where a definite plan is followed. Such a plan requires a careful analysis of purchases of materials, labor and expenses, in order properly to distribute these items so far as they apply directly to the various departments. Accurate records must be kept of the weight of the product at certain stages and of the operating hours of the cutting machines, because weight and machine hours provide the means by which costs may be applied to individual styles and sizes of nails and tacks.

In order to show this need for a cost-finding plan it will be necessary to describe in some detail the various manufacturing departments and operations of a nail and tack factory. This description will serve to bring out many of the peculiarities and problems encountered in the finding of costs in the industry.

The factory which has been selected to serve as a basis for this description is one which is engaged principally in the manufacture of iron and brass nails and tacks.

Such a factory would ordinarily be departmentalized somewhat as follows:

Receiving and storing.
Pickling (iron only).
Gauging.
Chopping.

* A thesis presented at the November, 1920, examinations of the American Institute of Accountants.

Cutting.
Polishing.
Sifting.
Applying finish (blueing, etc.).
Assorting.
Packing.

The principal raw materials are iron and brass, which are purchased from rolling mills in plates of various sizes and gauges. When the plate is unloaded from the cars in which it was shipped from the rolling mills, it is piled in storerooms, each gauge and size being kept in a separate pile. This arrangement makes it possible to verify the inventory of the various gauges of iron and brass plates on hand at any time with a minimum of effort, as it is necessary only to measure the height of each pile of plate. If, in addition to piling the plates of each gauge and size separately, permanent measurements be painted on the walls indicating the height in feet and inches, the sum total of the heights of piles of a given size can be obtained without even the necessity of measuring them. Having ascertained the total height of each pile of plate, the weight of each pile can readily be computed by multiplying the height by the weight per vertical foot of each particular size. This method of inventorying plate is so simple and expeditious that a monthly inventory, by which to verify the records of the amount of iron plate sent to the pickling department and the amount of brass plate sent to the gauging department during the month, can be quickly and accurately obtained. The labor and expenses incidental to handling the plate are included in the overhead expense.

In the pickling department the iron plates are placed in metal baskets having separators to keep the plates apart so as to permit the solution to come in contact with the entire surface of each plate. These baskets are then immersed successively in three separate tanks. The first tank contains vitriol which removes the scale and rust. The second tank contains water which flushes the plates. The third contains a lime solution which neutralizes the vitriol and reduces wear on cutting and forming tools. After the plates have gone through the lime solution the baskets are moved into a drying room. After the plate is dried it is weighed and sent to the gauging department. The costs applied here are those of labor, supplies and overhead expense applicable to this department.

The cost of pickling the plate per hundredweight varies with the gauge. The lighter the gauge—that is the thinner the plate—the more plate surface per hundredweight. Where various sizes and gauges are pickled during the month, the pickling cost per hundredweight of each size and gauge may be determined as follows:

First, the operating cost of the department is divided by the total area of the surface pickled in order to ascertain the surface cost.

Second, the surface area per hundredweight of each size and gauge is multiplied by the average surface cost.

In the gauging department, iron plate and brass plate are gauged and sorted into piles according to gauges ready for the choppers. The costs in this department are labor and overhead expense. The gauging department cost varies for each gauge because each gauge has a different number of plates per hundredweight.

When plates of various gauges are handled in this department during the month, the cost per hundredweight of each gauge can be determined as follows:

The cost of operating the department is divided by the number of plates gauged and the result is multiplied by the number of plates in a hundred pounds of each gauge.

In the chopping department the plates are chopped into strips. These strips vary in width for each size and length of nail or tack to be manufactured. After chopping, these strips are piled or bundled by widths and gauges ready for the cutters. The costs applied here are labor and overhead expense. The chopping department cost varies by gauges for the same reason that has already been mentioned in discussing the cost of the gauging department and may be determined in a similar manner.

In the cutting department the strips which have come from the chopping room are fed into machines which cut and shape the nails and tacks. The elements of cost applied here are labor and overhead expense. The labor cost consists entirely of wages paid to the tackmakers and their assistants. These wages are based either on the product at piece rates per hundred thousand nails or tacks or at day rates. In determining either day or piece rates consideration must be given to the wide difference in the production of the various kinds and sizes of product of tack-making machines. This difference results from two factors, namely, the

differences in the cutting speeds of the machines themselves and the differences in the sizes of the nails or tacks being cut. For example, a machine making large sizes produces more pounds in a given amount of time than a machine making small sizes, although it is operating at a lower rate of speed.

Labor costs, either at piece rates or at day rates, are therefore lower per hundredweight on large sizes than on small sizes. When the product is paid for on the basis of established schedules of piece rates, the labor cost of cutting any size per hundredweight can be ascertained readily. When the product is paid for at day rates, the cutting cost per hundredweight of each size and kind can be determined by first finding the average labor cutting cost per machine hour and then determining the time consumed in cutting a hundredweight of each size and kind. After these facts have been ascertained, the labor cost of each size and kind may be easily determined.

Whether labor is paid for at piece rates or day rates, the weight of the daily product of the department is recorded. This record, which consists of an analysis of the product of each tackmaker, is kept by the weighing clerk. Where piece rates are used the tackmaker also keeps a daily record of the weight of his product to enable him to make up his monthly or weekly "pay bill." After the bills have been verified from the factory weighing clerk's record, the amount of advances, if any, made to the tackmakers are deducted and the balances are paid to them. Where day rates are used there is no necessity for the tackmaker to keep a record of his production.

The average overhead expense of the cutting department is determined by dividing the total expense of the department by the total number of operating machine hours. This average machine-hour cost may be applied to each size and kind of nail or tack, after determining the time consumed in cutting a hundredweight of each size and kind. On leaving the cutting department the nails or tacks are sent to the polishing department, sifting department, assorting department or direct to the packing department, according to the treatment the product requires.

In the polishing department the nails and tacks are polished in revolving drums. The elements of cost applied here are labor, supplies and overhead expense. The cost is determined by dividing the cost of operating this department by the number of pounds of nails and tacks polished. After being polished the nails or tacks

are sent either to the sifting department or directly to the packing department, the destination depending on the particular kind or style of product.

In the sifting department the defective nails and tacks are eliminated by means of mechanical sifters. The product is then sent to the finishing department, assorting department or packing department. The elements of cost applied in the sifting department are labor and overhead expense; and the sifting-department cost is determined in the same manner as that adopted in the polishing department.

Applying finish consists of japanning, tinning, blueing, etc. The elements of cost are labor, supplies and overhead expense. This cost is also determined in the same manner as are the costs of the polishing department and sifting department.

In the assorting department certain kinds of nails or tacks are hand picked to discover any imperfect nails or tacks which have not been eliminated by the mechanical sifters; and after being assorted they are sent to the packing department. The elements of cost applied here are labor and overhead expense. The cost is determined as in the polishing department.

In the packing department the product is weighed and packed in a variety of containers, including boxes, kegs, cartons and paper wrappers. The elements of cost applied here are the container, labor, supplies and overhead expense. The costs of the container and supplies are readily ascertainable. Labor for packing small packages as differentiated from bulk packing is generally paid at piece-rate prices per hundred packages. Where the product is paid for on the basis of established schedules of piece rates, the labor cost of packing per hundredweight of each size and kind can be readily ascertained. Overhead expense may be applied on a weight basis. After the product is packed it is sent to the storeroom.

Having sketched very briefly the course of the product through the factory and having called attention incidentally to some of the accounting problems encountered, there remain for consideration some further matters peculiar to accounting in this industry. The method of distributing general overhead expense among the various departments and the method of accounting for waste present some interesting features.

Overhead expense so far as possible should be applied directly to the various departments. The greater part, however, of the

overhead expense is not incurred by any particular department and must be distributed on some equitable basis. Such expenses can often be grouped to reduce the number of items to be thus apportioned.

Under the general classification of rent, heat, etc., should be included expenses of an allied nature, such as depreciation, repairs and insurance on buildings, local taxes on buildings and heat. This division of expense may be apportioned to each department on the basis of floor space. In like manner items applicable to machinery, such as depreciation, insurance and local taxes on machinery, can be apportioned to each department on the basis of the investment value of the machinery in each department.

Under power should be included all expenses necessary to its production; and records should be kept of the horsepower produced by the power plant. These records will furnish the basis for the distribution of the horsepower cost to the several departments. The horsepower cost may be apportioned to the several departments by determining the horsepower required to operate each department. Where the power is furnished by electric motors the installation of a meter in each department will provide the information necessary for finding the cost of power.

It has been found most equitable to distribute such items of overhead expense as general factory superintendence, expense labor and sundry factory expense on the basis of "operating cutting machine hours," because the total product passes through the tack machine. The method by which the cost of such items can be applied to each size and kind of nail and tack manufactured has already been explained in discussion of the cutting department.

There remains the element of waste which is deserving of special consideration. Many tests have proved that it takes varying weights of plate in excess of 100 pounds to make 100 pounds of finished nails or tacks. The waste occurs in part in each department and may be either invisible or visible in its nature.

The pickling department furnishes a particularly notable example of invisible waste that is caused by the action of the vitriol which removes iron scale and rust from the plate. In the cutting department the visible waste consists mainly of the ends of chopped strips of plate held by the feeder clamps. It is necessary to determine the amount of waste which occurs in each department, as this information is needed to compute the cost of finished goods per hundredweight. This necessity becomes apparent

as each department successively handles a gradually diminishing weight in excess of one hundred pounds in the production of one hundred pounds of finished goods.

The cost of finished goods per hundredweight must include the necessary weight handled by each department ultimately to produce 100 pounds of finished goods.

Administrative and selling costs, of course, would be recognized in the cost-finding plan in order to determine the total aggregate outlay against which the selling price shall provide for a satisfactory profit, but as these items present no greater problems than in other industries, no further comment will be made upon them.

Emphasis must be laid upon the point that an industry in order to be in a position to charge fair prices, bid successfully on contracts and operate on a good competitive basis, must know definitely the cost of its product.

The foregoing description of the various departments and the comments as to needed basic cost-finding information should show the necessity for a definite operating plan of accounting. An attempt has been made to indicate broadly the elements of cost in the various departments, the sources of these costs and the method of applying them.

The solution of the cost-finding problems in each department and the application of these departmental costs to so varied a finished product require a system carefully planned which would have to be adapted to fit the needs of each particular factory.

The Journal of Accountancy

Official Organ of the American Institute of Accountants

A. P. RICHARDSON Editor

EDITORIAL

Where the Dollar Goes

What becomes of the dollar we pay in federal taxes? According to the federal appropriations for 1921—

OF THE DOLLAR OF TAXATION THE GOVERNMENT USES

To pay for past wars	*To pay for present defense*	*To pay for all other governmental activities*
68 cents	20 cents	12 cents

Pieces-of-Eight—Pieces-of-Eight

The man who said that there was a fool born every minute must have been a conservative. There are not minutes enough. There must be a limitless number of gullible souls to whom words of warning and counsel are as the passing winds. Witness the recent recurrence of a campaign of gold-brick selling. If there were not many buyers the sellers would abandon their vocation.

Two years ago anything that bore the hall-mark of Oklahoma or oil could be sold without a struggle. The fools were clamoring to be fooled.

Then came a period in which oil began to smell rather unsweetly, and, many of the fools having been sufficiently exploited, the vendor of oil stocks changed his tune and his wares. For a while he was more or less inactive—perhaps because he needed time in which to enjoy the winnings.

Lately, however, the game has been reopened and is going merrily along. The mails bring to all and sundry the rarest opportunities for the almost instant acquisition of wealth. Anyone can make a fortune. Ponzi is being out-Ponzied. And that is the reason why we say that there are not minutes enough to allot one to each fool.

You can judge a man by his reading. Show us the daily paper of a stranger and we can tell you something about his honesty, his intellect, his regard for his native land. Someone said recently that there were about as many people of that kind as were claimed as readers for a certain group of newspapers. That was a hopeful thought.

On the same principle there must be an infinite number of fools in the country—else would the letters addressed plainly to fools be less numerous.

Why, the merchantmen of the Spanish main were no more alluring a bait than the savings-bank accounts of to-day. The privateers are coming down the wind with all sails set. They dream of doubloons and pieces-of-eight. Captain Flint has his glass to his eye. He is a pleasant-mannered man. His words are as oil of Oklahoma for smoothness and subtlety. Says he: "Why leave your money in a musty savings bank or in the hands of your old fogey Uncle at Washington. Sell your Liberty bonds; draw out your bank accounts—I'll show you how to double your interest. Nay, if that would not satisfy you, I'll show you how to double your principal. Indeed, I can show you how to make any amount of profit you name if you will only confide in me."

And so the foolish craft is hove to and Captain Flint comes aboard to explain more in detail. The rest is easy.

This sounds like a cruise into pure fancy. But it is not. It can not be. The mails are burdened with the blandishments of the stock seller. And it is not a temporary condition, this plethora of fools. It is continuing.

It may be said with a great deal of truth that the man or woman who is deceived deserves no better fate. Quite lately we expressed our opinion of the person who is seduced by circular. But it is a condition that confronts us and it is one that is having a pernicious effect on the whole country. The thrift of war savings is being dissipated to enrich the pirates of the day.

It is wholly regrettable. It is utterly damnable. But what can be done about it? The circulars are not always amenable to post-office regulations for the protection of fools. What can avert this woful waste? Frankly we have no solution of the problem. But it is so inimical to the fiscal health of the country with which we are concerned that we can not forbear to mention it if only in consternation.

Complaints

Among the responsibilities which came to us with the business management of THE JOURNAL OF ACCOUNTANCY was a vociferous family of complaints. Long complaints, short complaints, strong ones, querulous ones—all bearing the resemblance which goes with consanguinity. Some of them are rather old complaints and their cases appear to be chronic. But there is a cure for them and it is being administered as rapidly as may be. If any reader has a complaint against the magazine which has not received attention he is asked to repeat the history of the case.

As we proceed further away from April 1st—the date on which the business management of THE JOURNAL OF ACCOUNTANCY came back to the American Institute of Accountants—the complaints will be a diminishing tribe.

We invite advice and criticism. We answer current complaints immediately. The old and just grievances which antedated April, 1921, will be adjusted as speedily as possible.

American Institute of Accountants

MEETING OF COUNCIL, APRIL 11, 1921

A regular meeting of the council of the American Institute of Accountants was held at the Metropolitan Club, Washington, D. C., Monday, April 11, 1921.

The following were present:

Carl H. Nau, president, in the chair
W. P. Hilton, vice-president
T. Edward Ross, vice-president
J. E. Sterrett, treasurer
A. P. Richardson, secretary
J. D. M. Crockett
W. Sanders Davies
J. S. M. Goodloe
Edward E. Gore
Elmer L. Hatter
J. E. Hutchinson
Clifford E. Iszard
J. Porter Joplin
Charles S. Ludlam
J. Edward Masters
James S. Matteson
Robert H. Montgomery
Walter Mucklow
John B. Niven
Waldron H. Rand
Adam A. Ross
F. A. Ross
John R. Ruckstell
E. W. Sells
Edward L. Suffern
F. A. Tilton
William Jeffers Wilson

Minutes of the meetings of September 20 and 23, 1920, and record of mail ballot on the election of members and associates were approved.

The meeting adjourned and the council convened as a trial board.

After consideration of evidence submitted the council expelled Albert Star Moore from membership in the institute.

James T. Anyon applied for reinstatement and the application was unanimously granted.

Reports of the following were accepted:

Treasurer
Secretary
Executive committee
Committee on professional ethics
Committee on budget and finance
Committee on federal legislation
Committee on meetings

Committee on publication
Committee on state legislation
Committee on accounting terminology

The resignation of F. F. White from the committee on professional ethics was accepted with regret and Adam A. Ross was elected to fill the vacancy.

The council approved and ratified all acts of the executive committee since the beginning of the fiscal year.

A committee was appointed to investigate the question of obtaining a national charter for the American Institute of Accountants.

The council approved the additional appropriations recommended by the committee on budget and finance.

The meeting adjourned.

Income-tax Department

EDITED BY STEPHEN G. RUSK

Included among the treasury decisions handed down since the last issue of THE JOURNAL OF ACCOUNTANCY are two or more that are of unusual interest, although there is nothing startling in the conclusions reached. These will be briefly discussed in later paragraphs; but the one matter in which all will find interest is the decision of the United States supreme court relative to taxing as income profits earned in the sale of capital assets.

This decision was given by Justice Clark and is well worth careful reading and thoughtful consideration.

It does not sustain the position taken by Judge Thomas, of the United States district court, that there is a distinction beween income earned in the operation of the business and that arising from transactions in the so-called capital assets used in the business. The decision of the supreme court is quite in line with the position taken by the accounting profession generally and will set at rest the idea that profits realized on investments are capital instead of income.

Bringing these suits to test this theory has been generally beneficial in abolishing the rigid rule that the excess of sales price over the fair value at March 1, 1913, of property sold shall be considered taxable income. This rule has been modified, as pointed out in the April number of THE JOURNAL OF ACCOUNTANCY, so that the excess of sales price over the fair value at March 1, 1913, shall be income when the said fair value equals or exceeds the original cost of the property sold. This modification is based upon sound principles.

It is regrettable that the decision of the United States supreme court is not available for printing this month, but it will be included in the June issue.

Treasury decision 3137 will be found to contain a thought that occurred to many of us at the time of our first reading of provisions of the excess-profits-tax law, appertaining to the computation of the graduated scale of excess-profits taxes. It will be remembered how many puzzling problems the language of the act brought to the harassed accountant when he first attacked the work of making a return.

This decision sets at rest any doubts there may have remained as to the proper method of computing excess-profits taxes.

Treasury decision 3138 treats of income arising from community of interest of husband and wife in property in certain states of the union.

Treasury decision 3147 is based upon a decision of the district court of the United States for the district of Minnesota in the case of *Great Northern Railway Company versus E. J. Lynch, collector.*

This decision appertains to the corporation excise-tax law of 1909 and in some of its conclusions seems to conflict with the decision of the United States supreme court in the *Brewster versus Walsh* case. This latter case, however, was brought as a test of the revenue act of 1916, after the six-

teenth amendment to the constitution had been adopted, which may account for the apparent conflict.

The other treasury decisions printed in this month's issue of THE JOURNAL OF ACCOUNTANCY relate to estate taxes and, while worthy of comment, are printed without, because of the limitations of space of an issue in which income-tax matters are requiring perhaps more than their proper share.

(T. D. 3137—March 2, 1921.)

War excess-profits tax—Revenue act of 1917—Decision of court.

COMPUTATION OF TAX—DEDUCTIONS.

The deduction provided for by section 203 of the revenue act of 1917 must be taken from net income as a part of the computation of the tax, and not before the computation.

A portion of the decision of the District Court of the United States for the Eastern District of New York, dated November 18, 1920, in the combined cases of Greenport Basin & Construction Co. *v.* United States and Ira M. Young *v.* United States, is published for the information of internal revenue officers and others concerned. Only that portion of the opinion involving the computation of the war excess-profits tax is published.

UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF NEW YORK.
Greenport Basin & Construction Co. v. *United States and Ira M. Young* v. *United States.*

[Nov. 18, 1920.]

GARVIN, District Judge: These are two actions, each to recover an amount of excess-profits tax paid by the plaintiff under the revenue act approved October 3, 1917; plaintiff claims that the regulations adopted by the treasury department, under which the tax was paid, go beyond the plain intent and meaning of the law. The cases come before the court on demurrers, which involve the same questions of law and are on the following grounds:

1. That it appears upon the face of the said complaint that the complaint does not state facts sufficient to constitute a cause of action.
2. That the complaint does not set out facts sufficient to constitute a cause of action against the defendant named herein.
3. That this court has no jurisdiction of this defendant.

Only the first two need be considered, the defendant having abandoned the third.

* * * * * * *

The second ground of demurrer brings us to the consideration of whether the method of computing the tax was proper. Section 201 of the revenue act of 1917, which does not appear to have been judicially construed, reads as follows:

That in addition to the taxes under existing law and under this act there shall be levied, assessed, collected, and paid for each taxable year upon the income of every corporation, partnership, or individual a tax (hereinafter in this title referred to as the tax) equal to the following percentages of the net income:

Twenty per centum of the amount of the net income in excess of the deduction (determined as hereinafter provided) and not in excess of fifteen per centum of the invested capital for the taxable year;

Twenty-five per centum of the amount of the net income in excess of fifteen per centum and not in excess of twenty per centum of such capital;

Thirty-five per centum of the amount of the net income in excess of twenty per centum and not in excess of twenty-five per centum of such capital;

Forty-five per centum of the amount of the net income in excess of twenty-five per centum and not in excess of thirty-three per centum of such capital; and

Sixty per centum of the amount of the net income in excess of thirty-three per centum of such capital.

Under articles 16 and 17 of regulations No. 41 issued by the commissioner of internal revenue, which describe in detail the method of computing the excess-profits tax, the deductions have been made, not from the net income before the computation of the tax, but as a part of the computation. These articles have no binding force if they alter, amend, or extend the statute.—*Merrill vs. Jones* (106 U. S. 466). It is necessary therefore, to consider the language of the act in order to ascertain what was intended by congress.

According to section 201 of the revenue act of 1917, supra, a tax is imposed at the rate of 20 per cent. upon "the amount of the net income in excess of the deduction and not in excess of fifteen per centum of the invested capital for the taxable year," etc. While the entire section is not free from ambiguity, the court is of the opinion that, having in mind the necessity of adopting a construction in accordance with the intent of congress when the act was adopted, that urged by the government must prevail. If it had been the purpose of congress to have the tax computed as plaintiff contends, the first paragraph of section 201 would have provided for the levy of a tax "equal to the following percentages of the net income less the deduction determined as hereinafter provided," making no mention of any deduction in the following paragraph.

If the section as it now reads is carefully analyzed, it is apparent that the amount of the net income which is to be taxed at the rate of 20 per cent. is not more than 15 per cent. of the invested capital for the taxable year. But not so much of the net income as is represented by such 15 per cent. is to be so taxed because there must first be allowed the deduction.

The following computation in the case of the Greenport Basin & Construction Co. tax, under regulations No. 41, shows how the actual wording of the act is followed under regulations No. 41 which are here under attack:

GREENPORT CASE.—*Computation of Greenport Basin & Construction Co. tax under Regulations No. 41.*

Invested capital	$215,615.55	Deduction estimated as follows:	
Income	76,361.20	7% of $215,615.55=...	$15,093.08
Deduction	18,093.08	Specific deduction=...	3,000.00
			18,093.08

SCHEDULE IV, REVENUE ACT 1917.—*Classes of income.*

Over—	But not over—	Income	Deduction	Balance subject to tax	Rate	Amount of tax
(1)	(2)	(3)	(4)	(5)	(6)	(7)
$0.00	15% inv. cap.	$32,342.33	$18,093.08	$14,249.25	20%	$2,849.85
15% inv. cap.	20% inv. cap.	10,780.77	None	10,780.77	25%	2,695.19
20% inv. cap.	25% inv. cap.	10,780.77	None	10,780.77	35%	3,773.27
25% inv. cap.	33% inv. cap.	17,249.24	None	17,249.24	45%	7,762.15
33% inv. cap.	.....	5,208.09	None	5,208.09	60%	3,124.85
Total	.....	76,361.20	.....	.....	....	20,205.31

Pro rata for fiscal years: 5/6 of $20,205.31 = $16,837.76.

It is interesting to note also that, as congress continued to enact legislation designed to raise monies for war purposes, the language employed became more specific. That part of the revenue act of 1918 which fixed the rates of the tax upon the percentages of the net income is worded sub-

stantially like the act under consideration, but has an additional paragraph which reads as follows:

(d) In any case where the full amount of the excess-profit credit is not allowed under the first bracket of subdivision (a) or (b), by reason of the fact that such credit is in excess of 20 per centum of the invested capital, the part not so allowed shall be deducted from the amount in the second bracket.

While it is quite true that this is not controlling upon the construction of the act now before the court, it illustrates admirably how it would be quite possible for the full amount of the excess-profit credit to be in excess of 15 per cent. of the invested capital, in which event no provision would be made for allowing that part of the credit so in excess, under the law of 1917.

If the foregoing conclusions are correct, the demurrers must be sustained.

(T. D. 3138—March 3, 1921.)

Income and estate taxes—Husband and Wife—Community property—Opinion of Attorney General.

1. In Washington, Arizona, Idaho, New Mexico, Louisiana and Nevada the husband and wife domiciled therein, in rendering separate income-tax returns, may each report as gross income, one-half of the income which under the laws of the respective states becomes, simultaneously with its receipt, community property; this is not based upon any statute enacted subsequent to March 1, 1913, and applies under income-tax acts prior to the revenue act of 1918.

2. In Washington, Arizona, Idaho, New Mexico, Louisiana and Nevada there should be included in gross estate, in computing the estate tax of a deceased spouse, one-half only of the community property of husband and wife domiciled therein; this is not based upon any statute enacted subsequent to March 1, 1913, and applies under estate-tax acts prior to the revenue act of 1918.

(T. D. 3147—March 11, 1921.)

Corporation excise tax—Act of August 5, 1909—Decision of court.

1. Income—Obligations of Taxpayer Outlawed and Written Off During Taxable Year.

The amount of obligations of a railroad corporation carried on the books as liabilities, which became outlawed and were therefore written off during the taxable years 1910 and 1911, represented profit to the company which was properly included in its net income for the year in which so written off.

2. Same—Property Sold for More Than Its Value January 1, 1909, But Less Than Purchase Price Prior Thereto.

The excess of the sale price over the value on January 1, 1909, of property acquired prior to that date, and sold during 1909 and 1910, was income for the year in which received, although the sale price was less than the purchase price of the property.

3. Same—Property Sold for Amount Equivalent to Value January 1, 1909, But Greater Than Purchase Price Prior Thereto.

The sale in 1910 and 1911 of property acquired prior to January 1, 1909, or an amount equivalent to its market value on that date, but in excess of its purchase price, did not result in income for the purposes of the corporation excise tax of August 5, 1909.

In the District Court of the United States for the District of Minnesota, Third Division. No. 797.

Great Northern Railway Co., plaintiff, v. E. J. Lynch, collector of internal revenue, defendant.

[January 10, 1921.]

Booth, District Judge: The above action came on regularly for trial on the 11th day of March, 1918, each party appearing by its respective counsel.

From the admissions and stipulations of the parties then and there made and filed, and from the pleadings of the parties, the court finds as follows:

FINDINGS OF FACT.

1. That plaintiff is a corporation duly formed and existing under the laws of the state of Minnesota, and has a principal office at St. Paul in Ramsey County in said state.

2. That E. J. Lynch is, and was, on all the dates hereinafter mentioned, collector of internal revenue for the district of Minnesota, being duly commissioned as such pursuant to the laws of the United States.

3. That on or about the 16th day of September, 1913, the United States commissioner of internal revenue, presuming to act by virtue of due legal authority conferred by the statutes of the United States congress, assessed against the plaintiff as a corporation having capital stock and alleged to be engaged in business in Minnesota, an additional internal revenue special excise tax of $2,530.93, alleged to be due from said corporation to the United States for the year ended December 31, 1910, and an additional internal revenue special excise tax of $4,176.09, alleged to be due from said corporation to the United States for the year ended December 31, 1911, under the act of congress of August 5, 1909. That the lists upon which said assessments appeared were thereafter duly transmitted to the defendant and defendant thereupon made a formal demand for the payment of said tax so assessed.

4. That under date of September 26, 1913, the plaintiff filed with the defendant and with the United States commissioner of internal revenue a claim for the remission and abatement of said additional internal revenue special excise taxes.

5. That on or about the 18th day of October, 1913, the plaintiff paid to the defendant the amount of said additional assessment, but at the same time filed with defendant and with the United States commissioner of internal revenue writings stating that each of said payments were made under protest, and with a denial of any legal obligation of liability, and solely for the purpose of avoiding the imposition of a penalty and distraint and sale of property, and reserving to the plaintiff all rights for the recovery of the amounts of each of said payments.

6. That thereafter and on or about the 18th day of October, 1913, the plaintiff filed with the defendant and with the United States commissioner of internal revenue claims for the refunding of $1,734.73 of the additional tax assessed for the year 1910 as aforesaid, and of $1,361.46, of the additional tax paid for the year 1911 as aforesaid.

7. That on or about the 11th day of November, 1913, the deputy United States commissioner of internal revenue denied plaintiff's claim for refund of said 1910 taxes, except as to $101.98 thereof, and that on or about the 20th day of November, 1913, the said deputy United States commissioner denied plaintiff's claim for refund of said 1911 taxes, except as to $57.68 thereof. That plaintiff has still outstanding the balance of said 1910 taxes amounting to $1,632.75, and the balance of said 1911 taxes amounting to the sum of $1,303.79, or an aggregate of $2,936.53.

8. That of said additional tax of $2,936.53, assessed and withheld from plaintiff as aforesaid, the sum of $70.01 consisted of an assessment of 1 per cent. upon the sum of $7,001.32, entered upon the books of the plaintiff as profit during the year 1910, and consisting of unpaid obligations of plaintiff accruing prior to January 1, 1909, and which were carried as liabilities until they became outlawed, and were then written off of plaintiff's books as aforesaid, and the sum of $44.88 consisted of an assessment of 1 per cent. upon the sum of $4,488, entered upon the books of plaintiff as profit during the year 1911, and consisting of unpaid obligations of plaintiff accruing prior to January 1, 1909, and which were carried as liabilities until they became outlawed and were then written off of plaintiff's books in 1911.

9. That of said additional tax of $2,936.53 assessed and withheld from plaintiff as aforesaid, the sum of $376.61 consisted of an assessment of 1 per cent. upon receipts of $37,660.67, received by plaintiff as proceeds of the sale of 300 shares of stock of the Swan River Logging Co. purchased on September 23, 1899, for $300,000 and entered on its books October 10, 1908, at a value of $75,000. On November 1, 1909, plaintiff received $95,000 for said stock and the excess over said amount of $75,000 being $20,000, was assessed to plaintiff as income for the year 1909. The said sum of $37,-660.67 represents additional proceeds of the sale of said stock received in 1910. No further evidence was offered as to the value of said stock on December 31, 1909.

10. That the balance of said sum of $2,936.53 assessed and withheld as aforesaid, to wit: the sum of $2,445.03 consisted of an assessment of 1 per cent. upon $244,503.79, being a portion of receipts during the years 1910 and 1911 from sales of real estate, the total excess of selling price over original cost of the same having been prorated over the period of ownership, and the said sum of $244,503.79 having been treated as the pro rata proportion of said excess for the period since the act of 1909 became effective. Said real estate had been purchased prior to 1909 and sold at a profit as above stated during the years 1910 and 1911, the selling price in all cases being exactly equal to the market value of said real estate as of the 31st day of December, 1908.

CONCLUSIONS OF LAW.

From the foregoing facts the court concludes as follows:

1. That the said sum of $2,445.03 referred to in finding No. 10, was illegally and improperly assessed against and collected from the plaintiff, and that it was paid by plaintiff under duress and protest, and that claim for refund of said tax filed by plaintiff with the commissioner of internal revenue as required by law was denied prior to the institution of this suit.

2. That the plaintiff is entitled to judgment against the defendant, E. J. Lynch, as collector of internal revenue, for the said sum of $2,445.03, together with interest thereon at the rate of 6 per cent. per annum from October 16, 1913, and for its cost herein.

3. That the items of the additional assessment mentioned in findings Nos. 8 and 9 were properly and legally assessed and collected and the plaintiff is not entitled to judgment against the defendant for or on account of said items amounting to an aggregate of $491.50.

4. That the said sum of $2,445.03 was received by the defendant and by him paid into the treasury of the United States in the performance of his official duty, and that there was probable cause for his act, and that he acted under the directions of the proper officer of the government, and that no execution should issue against him, but that the amount to be recovered should be provided for and paid out of the proper appropriation from the treasury.

Done in open court this 10th day of January, 1921.

(T. D. 3150—April 2, 1921.)

Estate tax—Act of September 8, 1916, Title II—Decision of Supreme Court.

1. GROSS ESTATE—CONDITIONS—SECTION 202 (a) CONSTRUED.

The conditions expressed in clause (a) of section 202, act of September 8, 1916, to the effect that the taxable estate must be (1) an interest of the decedent at the time of his death, (2) which after his death is subject to the payment of the charges against his estate and the expenses of its administration, and (3) is subject to distribution as part of his estate, are expressed conjunctively, and it would be inadmissible, in construing the act, to read them as if prescribed disjunctively; hence, unless the three conditions are fulfilled, property involved does not become part of the gross estate.

2. Power of Appointment—Time of Creation and Excution.

Property passing under testamentary execution of a general power of appointment created prior but executed subsequent to the passage of the act of September 8, 1916, is not subject to the estate tax imposed by Title II of such act.

The appended decision of the Supreme Court of the United States, rendered February 28, 1921, in the case of the United States v. Stanley Field, as executor of the estate of Kate Field, deceased, is published for the information of internal revenue officers and others concerned.

Supreme Court of the United States. No. 442. October Term, 1920.

United States, appellant, v. Stanley Field, as executor of the estate of Kate Field, deceased.

Appeal from the Court of Claims.

[Feb. 28, 1921.]

Mr. Justice Pitney delivered the opinion of the court:

This is an appeal from a judgment of the court of claims sustaining a claim for refund of an estate tax exacted under title II of the revenue act of September 8, 1916, as amended by act of March 3, 1917 (ch. 463, 39 Stat., 756, 777; ch. 159, 39 Stat., 1000, 1002). It presents the question whether the act taxed a certain interest that passed under testamentary execution of a general power of appointment created prior but executed subsequent to its passage.

The facts are as follows: Joseph N. Field, a citizen and resident of Illinois, died April 29, 1914, leaving a will which was duly admitted to probate in that State, and by which he gave the residue of his estate, after payment of certain legacies, to trustees, with provision that one-third of it should be set apart and held as a separate trust fund for the benefit of his wife, Kate Field, the net income to be paid to her during life, and from and after her death the net income of one-half of said share of the trust estate to be paid to such persons and in such shares as she should appoint by last will and testament. The trust was to continue until the death of the last surviving grandchild of the testator who was living at the time of his death, and at its termination the undistributed estate was to be divided among named beneficiaries or their issue, per stirpes, in proportions specified. Kate Field died April 29, 1917, a resident of Illinois, leaving a will which was duly probated in that State, by which she executed the power of appointment, directing that the income to which the power related should be paid in equal shares to her children surviving at the date of the respective payments, the issue of any deceased child to stand in the place of such deceased child. The collector of internal revenue, assuming to act under the revenue act of 1916, as amended, and regulations issued by the commissioner of internal revenue, included as a part of the gross estate of Kate Field the appointed estate passing under her execution of the power; and proceeded to assess and collect an estate tax based upon the net value thereof, and amounting to $121,059.60. Her executor, having paid the tax under protest, and having made a claim for refund which was considered and rejected by the commissioner of internal revenue, brought this suit and recovered judgment, from which the United States appeals.

The revenue act of 1916, in section 201 (39 Stat., 777), imposes a tax equal to specified percentages of the value of the net estate "upon the transfer of the net estate of every decedent dying after the passage of this act." By section 203 (p. 778) the value of the net estate is to be determined by subtracting from the value of the gross estate certain specified deductions. The gross estate is to be valued as follows:

Sec. 202. That the value of the gross estate of the decedent shall be determined by including the value at the time of his death of all property, real or personal, tangible or intangible, wherever situated:

(a) To the extent of the interest therein of the decedent at the time of his death which after his death is subject to the payment of the charges against his estate and the expenses of its administration and is subject to distribution as part of his estate.

(b) To the extent of any interest therein of which the decedent has at any time made a transfer, or with respect to which he has created a trust, in contemplation of or intended to take effect in possession or enjoyment at or after his death, except in case of a bona fide sale for a fair consideration in money or money's worth. Any transfer of a material part of his property in the nature of a final disposition or distribution thereof, made by the decedent within two years prior to his death without such a consideration shall, unless shown to the contrary, be deemed to have been made in contemplation of death within the meaning of this title; * * *

The amendment of March 3, 1917 (39 Stat., 1002) pertains merely to the rates, and need not be further considered.[1]

The provision quoted from section 202 was construed by the treasury department, in United States internal revenue regulations No. 37, relating to estate taxes, revised May, 1917 (art. 11), as follows: "Property passing under a general power of appointment is to be included as a portion of the gross estate of a decedent appointor."

No question being suggested as to the power of congress to impose a tax upon the passing of property under testamentary execution of a power of appointment created before but executed after the passage of the taxing act—see *Chanler v. Kelsey* (205 U. S., 466, 473, 478-479); *Knowlton v. Moore* (178 U. S., 41, 56-61)—the case involves merely a question of the construction of the act. Applying the accepted canon that the provisions of such acts are not to be extended by implication (*Gould v. Gould*, 245 U. S., 151, 153), we are constrained to the view—notwithstanding the administrative construction adopted by the treasury department—that the revenue act of 1916 did not impose an estate tax upon property passing under a testamentary execution of a general power of appointment.

The government seeks to sustain the tax under both clauses above quoted from section 202.

The conditions expressed in clause (a) are to the effect that the taxable estate must be (1) an interest of the decedent at the time of his death, (2) which after his death is subject to the payment of the charges against his estate and the expenses of its administration, and (3) is subject to distribution as part of his estate. These conditions are expressed conjunctively; and it would be inadmissible, in construing a taxing act, to read them as if prescribed disjunctively. Hence, unless the appointed interest fulfilled all three conditions, it was not taxable under this clause.

The chief reliance of the government is upon the rule, well established in England and followed generally, but not universally, in this country, that where one has a general power of appointment either by deed or by will, and executes the power, equity will regard the property appointed as part of his assets for the payment of his creditors in preference to the claims of his voluntary appointees. See *Brandies v. Cochrane* (112 U. S., 344, 352).

The English cases are fully reviewed by the house of lords in *O'Grady v. Wilmot* [1916] (2 A. C., 231, 246, et. seq.). Illustrative cases in the American courts are *Johnson v. Cushing*, (15 N. H., 298, 307); *Rogers v. Hinton* (62 N. C., 101, 105); *Clapp v. Ingraham* (126 Mass., 200, 202); *Knowles v. Dodge* (1 Mack. [D. C.], 66, 72); *Freeman v. Butters* (94 Va., 406, 411); *Tallmadge v. Sill* (21 Barb., 34, 51, et seq.); contra, per Gibson, C. J., in *Commonwealth v. Duffield* (12 Pa., 277, 279-281); *Pearce v. Lederer* (262 Fed., 993); affirmed, *Lederer v. Pearce* (266 Fed., 497).

It is tacitly admitted that the rule obtains in Illinois, and we shall so assume.

But the existence of the power does not of itself vest any estate in the

[1] The act was further amended Oct. 3, 1917 (ch. 63, 40 Stat., 300, 324); superseded and repealed by act of Feb. 24, 1919 (ch. 18, 40 Stat., 1057, 1096, 1149).

donee.—*Collins v. Wickwire* (162 Mass., 143, 144); *Keays v. Blinn* (234 Ill., 121, 124); *Walker v. Treasurer* (221 Mass., 600, 602-603); *Shattuck v. Burrage* (229 Mass., 448, 451). See *Carver v. Jackson* (4 Pet., 1, 93).

Where the donee dies indebted, having executed the power in favor of volunteers, the appointed property is treated as equitable, not legal, assets of his estate.—*Clapp v. Ingraham* (126 Mass., 200, 203); *Patterson Co. v. Lawrence* (83 Ga., 703, 707); and (in the absence of statute), if it passes to the executor at all, it does so not by virtue of his office but as a matter of convenience and because he represents the rights of creditors.—*O'Grady v. Wilmot* [1916] (2 A. C., 231, 248-257); *Smith v. Garey* (2 Dev. & Bat. Eq. [N. C.] 42, 49); *Olney v. Balch* (154 Mass., 318, 322); *Emmons v. Shaw* (171 Mass., 410, 411); *Hill v. Treasurer* (229 Mass., 474, 477).

Where the power is executed, creditors of the donee can lay claim to the appointed estate only to the extent that the donee's own estate is insufficient to satisfy their demands.—*Patterson Co. v. Lawrence* (83 Ga., 703, 708); *Walker v. Treasurer* (221 Mass., 600, 602-603); *Shattuck v. Burrage* (229 Mass., 448, 452).

It is settled that (in the absence of statute), creditors have no redress in case of a failure to execute the power.—*Holmes v. Coghill* (7 Ves., 499, 507; affirmed, 12 Ves., 206, 214-215); *Gilman v. Bell* (99 Ill., 144, 150; *Duncanson v. Manson* (3 App. D. C., 260, 273).

And, whether the power be or be not exercised, the property that was subject to appointment is not subject to distribution as part of the estate of the donee. If there be no appointment, it goes according to the disposition of the donor. If there be an appointment to volunteers, then, subject to whatever charge creditors may have against it, it goes not to the next of kin or the legatees of the donee, but to his appointees under the power.

It follows that the interest in question, not having been property of Mrs. Field at the time of her death, nor subject to distribution as part of her estate, was not taxable under clause (a).

We deem it equally clear that it was not within clause (b). That clause is the complement of (a), and is aptly descriptive of a transfer of an interest in decedent's own property in his lifetime, intended to take effect at or after his death. It can not, without undue laxity of construction, be made to cover a transfer resulting from a testamentary execution by decedent of a power of appointment over property not his own.

It would have been easy for congress to express a purpose to tax property passing under a general power of appointment exercised by a decedent had such a purpose existed; and none was expressed in the act under consideration. In that of February 24, 1919, which took its place, the section providing how the value of the gross estate of the decedent shall be determined contains a clause precisely to the point (sec. 402 (e), 40 Stat., 1097): "To the extent of any property passing under a general power of appointment exercised by the decedent (1) by will, or (2) by deed executed in contemplation of, or intended to take effect in possession or enjoyment at or after, his death, except," etc. Its insertion indicates that congress at least was doubtful whether the previous act included property passing by appointment. See matter of *Miller* (110 N. Y., 216, 222); matter of *Harbeck* (161 N. Y., 211, 217-218); *United States v. Bashaw* (50 Fed. 749, 754). The government contends that the amendment was made for the purpose of clarifying rather than extending the law as it stood, and cites a statement to that effect in the report of the house committee on ways and means (House Doc. No. 1267, p. 101, 65th Cong., 2d sess.). It is evident, however, that this statement was based upon the interpretation of the act of 1916 adopted by the treasury department; the same report proceeded to declare (p. 102) that "the absence of a provision including property transferred by power of appointment makes it possible, by resorting to the creation of such a power, to effect two transfers of an estate with the payment of only one tax"; and this, together with the fact

that the committee proposed that the law be amended, shows that the treasury construction was not treated as a safe reliance.

The tax in question being unsupported by the taxing act, the court of claims was right in awarding reimbursement. Judgment affirmed.

(T. D. 3151—April 2, 1921.)

Estate tax—Act of September 8, 1916—Decision of court.

1. TRANSFER EFFECTIVE AT OR AFTER DEATH—RETROACTIVE OPERATION OF ACT.

The act of September 8, 1916, Title II, applies to a transfer made before the passage of the act and intended to take effect in possession or enjoyment at or after death, where the transferrer died after the act took effect.

2. CONSTITUTIONALITY OF ACT.

The act of September 8, 1916, Title II, construed as applying to transfers made before its passage and intended to take effect in possession or enjoyment at or after the death of a transferrer who dies after its passage, is not unconstitutional.

The appended decision of the District Court of the United States for the Northern District of California, Southern Division, in the case of Union Trust Co. of San Francisco et al., executors, v. Wardell, collector, is published for the information of internal revenue officers and others concerned.

DISTRICT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF CALIFORNIA, SOUTHERN DIVISION.

Union Trust Co. of San Francisco, a corporation, and Albert Lachman, as executor of the last will and testament of Henriette S. Lachman, deceased, plaintiffs, v. Justus S. Wardell, United States collector of internal revenue for the first district of California, defendant.

[No. 16220. Memorandum.]

RUDKIN, District Judge: Section 201 of the act of September 8, 1916 (39 Stat., 777), imposes a tax upon the transfer of the net estate of every decedent dying after the passage of the act, whether a resident or nonresident of the United States.

Section 202 provides:

That the value of the gross estate of the decedent shall be determined by including the value at the time of his death of all property, real or personal, tangible or intangible, wherever situated: * * *

(b) To the extent of any interest therein of which the decedent has at any time made a transfer, or with respect to which he has created a trust, in contemplation of or intended to take effect in possession or enjoyment at or after his death, except in case of a bona fide sale for a fair consideration in money or money's worth.

The value of the net estate is ascertained by making certain authorized deductions from the value of the gross estate.

On the 31st day of May, 1901, Henriette S. Lachman executed a declaration of trust under the terms of which she assigned 7,475 shares of the capital stock of S. & H. Lachman estate, of which she was the owner, to her sons Albert Lachman and Henry Lachman, as trustees, to pay the income from the stock to her during her life, and upon her death to deliver the stock to certain relatives named in the trust deed. The grantor in the trust deed died on the 14th day of November, 1916, and the present suit was thereafter brought by her executors to recover the sum of $4,545.50 paid as tax on the above transfer, under protest.

Counsel for plaintiffs contends that the act should not be so construed as to include transfers made prior to its passage, and that if so construed

the act is unconstitutional and void. Both of these questions were determined adversely to the plaintiffs by the circuit court of appeals for the eighth circuit in *Schwab, executor, v. Doyle,* not yet reported. In that case the transfer was made in contemplation of death, whereas in the present case the transfer was intended to take effect in possession or enjoyment at or after death, but manifestly the same rule of construction will apply to both provisions, and the same rule of constitutional validity. I entertain no doubt that the act was intended to operate retrospectively, and a contrary construction could only be justified on the principle that such a construction would render the act unconstitutional. On the question of constitutionality the decision of an appellate court should certainly raise a doubt as to the invalidity of the act in the mind of a trial court, and without further discussion the demurrer will be sustained.

Let an order be entered accordingly.

Students' Department

EDITED BY H. A. FINNEY

EFFECTIVE INTEREST RATE

Editor, Students' Department:

SIR: In the *Students' Department* of the JOURNAL for November last, p. 385, there was given the solution of a problem to determine the effective rate of interest on a series of bonds issued at a discount and redeemable in part at par and in part at a premium. The problem was:

> An issue of $1,000,000.00 of bonds is made at 90 carrying interest at 5 per cent. redeemable at the value of $50,000.00 each half-year at 100 for the first five years and thereafter at 105. Find the effective rate of interest.

The problem was solved by the following procedure:

(a) A trial rate approximate to the true effective rate was obtained by a method based on arithmetical progression.

(b) The price at which the bonds would have been issued to yield this trial or assumed rate was computed by finding, with the aid of an interest table, the present value of all of the payments to be made on principal, premium and interest.

(c) The difference between the actual price of issue and the price at which the bonds would have been issued to yield the trial rate was ascertained. This difference was used as the basis of an arithmetical calculation to obtain a closer approximation of the rate. Steps (b) and (c) were repeated to obtain a third trial rate which was a still closer approximation. The extent of error in each trial rate was ascertained by the laborious process of setting up a table of repayments and amortization.

This method has the advantage of requiring no knowledge of algebra, but it has the disadvantage of being extremely laborious. I submit a solution by the method of interpolation which will perhaps interest those readers—and they cannot be few—who have some knowledge of algebra. The saving of labor thus afforded in this class of problems is so great that some may feel disposed to get out their college textbooks again and brush up their acquaintance with the operations and more important theorems of this branch of mathematics.

The steps of the solution correspond with the steps outlined above, with differences in procedure as indicated below:

(a) A trial rate is obtained as in (a) above.

(b) The present value of the loan at the trial rate—that is, the price at which the bonds would have been issued to yield the trial rate—is computed by utilizing Makeham's formula.

(c) The correction from the trial rate to the true rate is accomplished by interpolation.

The calculations will be based on $1.00 instead of $1,000,000.00 as the face value of the loan. The rate found on $1.00 of course will be that for the whole loan.

Step (a)

The first trial rate can be obtained by the method described in the November, 1920, JOURNAL, p. 386, or by the use of a table of serial bonds such as Rollins'. We thus obtain 4 per cent. as a starting point, knowing that the true effective rate is somewhat less.

Step (b)

Makeham's formula for the present value of a loan payable by instalments is:

$$A = K + \frac{g}{i} \times (1-K) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

when A is the present value of the loan
K is the present value of the instalments calculated at the rate i
g is the rate of interest paid by the borrower on the unpaid instalments—payable half-yearly
i is the rate of interest earned by the lender on the sum lent, converted half-yearly

This formula will give us the present value of the loan, disregarding the premium. We have therefore to find an expression for the present value of the premium, and by adding it to Makeham's formula we have a complete expression for the present value of the loan.

The premium consists of 10 payments of $2,500.00 payable at the end of each of 10 half-yearly periods beginning 10 periods hence. Each dollar of the loan, therefore, carries an annuity of .0025 for 10 periods deferred 10 periods, the present value of which is expressed by $.0025 \times {}_{10}a_{10}$.

The present value of an annuity for n periods deferred m periods can be expressed in terms of two immediate annuities, thus

$${}_m a_n = a_{m+n} - a_m$$

We therefore add this expression to (1) and obtain our complete formula for the present value of the loan:

$$A = \left[K + \left(\frac{g}{i} \times [1 - K]\right)\right] + \left[.0025 \times (a_{20} - a_{10})\right] \ldots\ldots (2)$$

g, the nominal rate per half-yearly period, is .025
i, the trial effective rate per half-yearly period, is .04

We now refer to tables such as Archer's to determine the required present values of annuities:

P. V. of annuity of 1 @ 4% for 20 periods, or a_{20} =	13.590,326,34
P. V. of annuity of 1 @ 4% for 10 periods, or a_{10} =	8.110,895,78
Then $a_{20} - a_{10}$ =	5.479,430,56

The formula may now be restated thus:

$$A = \left[K + \left(\frac{.025}{.04} \times [1 - K]\right)\right] + (.0025 \times 5.479,430,56)$$

As already stated, K is the present value of the instalments on the principal, calculated at the rate i, which in this case is .04. These instalments constitute an annuity of .05 for 20 periods, and K is their present value.

$$\begin{aligned} \text{Hence } K &= .05 \times a_{20} \\ &= .05 \times 13.590,326,34 \\ &= .679,516,32 \end{aligned}$$

The formula may now be stated thus:

$$A = \left[.679,516,32 + \left(\frac{.025}{.04} \times [1 - .679,516,32]\right)\right] + (.0025 \times 5.479,430,56)$$

and solved thus:

$$A = .679,516,32 + (.625 \times .320,483,68) + .013,698,57$$
$$= .679,516,32 + .200,302,30 + .013,698,57$$
$$= .893,517,19$$

This computation is also shown in tabular form at the end of this letter.

Step (c)

We now know that the trial rate, 4%, is too large, because the present value of the loan at that rate is too small, the present value .893,517,19 being less than the .9 stated in the problem as the price at which the bonds were issued.

We next try i = .03875. Referring to the tabular computation at the end of the letter, it will be noted that A at this rate is .902,992,0, which is greater than the given value, indicating that .03875 is too low a rate. Hence the true value of i, or the true effective rate, must be between .04 and .03875. We can obtain a first approximation to the true value of i by proportion, as follows:

	Trial rates	*Present values*
	3.875%	$.902,922,0
	4.	.893,517,2
Differences	.125	.009,404,8
Price at unknown rate		$.900,000,0
" " 4%		.893,517,2
Difference, or required increase over value at 4%		.006,482,8

If a decrease of .125% in the rate causes an increase of .009,404,8 in the price, the approximate effective rate may be computed thus:

$$i = 4\% - \left(\frac{64828}{94048} + .125\%\right)$$
$$= 4\% - (.6893) + .125\%)$$
$$= 4\% - .0862\%$$
$$= 3,913\%$$

The correctness of this rate, 3.9138%, can be tested in any one of three ways:

(1) By computing a table of repayments. This is the method adopted in the solution given in the November issue. It is rather laborious.

(2) By computing the value of A at the rate 3.9138%, using the formula already constructed, and noting how near it is to the given value, .9. But tables do not give the present values of annuities at such unusual rates, and if this method were adopted it would be necessary to use logarithms to compute the present value of annuities of 10 and 20 periods.

(3) By computing A at the next two lower interest rates in the book of interest tables. Having done this we shall have four exact present values of the loan at four different interest rates, in addition to the approximate present value at 3.9138%. With these four exact values we can construct a table of "differences" and by this powerful method not only test the accuracy of the 3.9138% rate but obtain a rate still more exact than 3.9138%.

We therefore compute A at the next two lower rates in Archer's tables, which are 3¾% and 3⅝%. The computations are given with the others at the end of this letter.

We can now set out these four values in our table with their differences.

TABLE A.—VALUE OF A AT VARIOUS VALUES OF i

i	A	D_1	D_2	D_3
.040,000	.893,517,19	.009,404,78	.000,151,85	.000,004,02
.038,750	.902,921,97	.009,556,63	.000,155,87	
.037,500	.912,478,60	.009,711,50		
.036,250	.922,190,10			

Columns i and A are taken from the computation. The column headed D_1 consists of the difference between the first and second, the second and third and the third and fourth of the values in column A. These are called first differences. Similarly column D_2 is made up of the differences of column D_1, while D_3 is the difference of D_2.

The first value of A is called the leading term and the differences on the first line are called the "leading differences."

This is not the place to explain the theory of finite differences. There are several books on the subject dealing with it from the point of view of the accountant. One such is Sunderland's *Notes on Finite Differences for the Use of Students.* Mr. Sprague's book, *The Accountancy of Investment,* also gives some explanation of it. There is also an excellent paper on practical interpolation by Mr. Little in the JOURNAL, Vol. 27, p. 48. Mr. Little adds a useful table of coefficients. A similar but smaller table is given in Chambers's table.

We can now find a value of A corresponding to i = .039138 which is the approximate value just found and thereby ascertain how near the truth it is.

Now the value of A at any intermediate rate between the first two values of i in our table will be the leading term plus a fraction of the first leading difference D_1 minus a fraction of the leading second difference D_2 and plus a fraction of the third difference D_3, or it may be expressed thus:

$$\text{at } i = .039{,}138, \quad A = \begin{cases} + \ .893{,}517{,}19 \\ + \ .009{,}404{,}78 \times m_1 \\ - \ .000{,}151{,}85 \times m_2 \\ + \ .000{,}004{,}02 \times m_3 \end{cases}$$

The values for m_1, m_2 and m_3 are found by reference to books containing tables of these coefficients, or they may be computed as follows:

To find m_1: .040000 The highest rate in the table
.039138 The trial rate
.000862
.040000 The highest rate in the table
.038750 The next lower rate in the table
.001250 Difference between rates
Then 862 ÷ 1250 = .6896 or m_1

To find m_2: 1 — .6896 = .3104
.3104 × .6896 = .2140
.2140 ÷ 2 = .1070 or m_2

To find m_3: 2 — .6896 = 1.3104
1.3104 × .1070 = .1402
.1402 ÷ 3 = .0467 or m_3

Then the value of A at .039,138 is found as follows:

	Value at .04	.893,517,19
Plus	.009,404,78 × .6896 (or $D_1 \times m_1$)	+.006,485,54
Minus	.000,151,85 × .1070 (or $D_2 \times m_2$)	—. 16,25
Plus	.000,004,02 × .0467 (or $D_3 \times m_3$)	+ ,16
	Value of A at .039138	.899,986,64
	Value of A at unknown rate	.900,000,00
	Difference	13,36

The value of A is too low by $13.36 on a loan of $900,000.00, and therefore .039138 is slightly too high. The computation would generally stop at this point as this value is sufficiently close for most purposes. Thus by computing A at two values of i from tables, and by simple interpolation we have found a first approximate value for i which is closer than the second approximation obtained by the arithmetical method used in the former solution. It is instructive, however, to carry the computation a stage further and find a closer approximation to the true value of i.

We have already obtained the following values:

	Rates	*Values*	
	.039138	.899,986,64	Interpolated
	.03875	.902,921,97	From tables
Differences	.000388	.002,935,33	
Price at unknown rate		.900,000,00	
Price at .039138		.899,986,64	
		.000,013,36	

The next approximate value of i is therefore found as follows:

$$i = .039138 - \left(\frac{1336}{293533} \times .000388\right)$$
$$= .03913623$$

Thus we have a value of i to 8 places which ought to be very near the truth and give a value of A very close to .9. To check this rate we compute the value of A at this rate for i by interpolation in our table of differences. To do so we must first compute the values of m_1, m_2 and m_3, when the rate is .039,136,23.

m_1: .040,000,00 The highest rate in the table
.039,136,23 The trial rate

.000,867,77

86377 ÷ 125000 = .691016 or m_1

m_2: 1 — .691016 = .308984
.308984 × .691016 = .21351
.21351 ÷ 2 = .10675 or m_2

m_3: 2 — .691016 = 1.308984
1.308984 × .10675 = .139734
.139734 ÷ 3 = .04658 or m_3

Then the value of A at .039,136,23 is found as follows:

	Value at 4%	.893,517,19
Plus	.009,404,78 × .691,016 (or $D_1 \times m_1$)	+.006,498,853
Minus	.000,151,85 × .106,75 (or $D_2 \times m_2$)	—. 016,210
Plus	.000,004,02 × .046,58 (or $D_3 \times m_3$)	+. 187
	Value of A at .039,136,23	.900,000,02
	Value of A given in problem	.900,000,00
	Difference	.000,000,02

This is as close as we can get with our 8-place interest tables. The effective rate of interest earned on the loan is 3.913,623 per cent. each half year, or a nominal yearly rate of 7.827,246 per cent., convertible half yearly. This is what is really required in considering a loan of this kind. The problem, however, calls for the effective rate. The effective semi-

annual rate has already been computed. The effective annual rate may be computed as follows:

$$1.039,136.23^2 - 1 = .079,804,1 \text{ or } 7.980,41\%$$

A table of repayments has been computed and shows that at this rate the loan is completely repaid at the end of the term. One advantage of this method is that any error in any one of the approximations will not throw out the final result because it will be corrected in the subsequent approximations.

None of the calculations has been such as require a calculating machine, although such a thing is of course useful and time-saving. Logarithms have not been employed. However, it is essential that a large interest table, such as Archer's, be available because interpolation methods cannot be usefully employed when the tabular rates are more than ¼% apart. Such a table as Archer's is a necessity in an accountant's office and together with Sprague's bond tables and Vega's logarithm table will enable the accountant to solve almost any actuarial problem not involving life contingencies.

New York. CHARLES JUDSON.

The calculation of A at various rates follows:

COMPUTATION OF THE PRESENT VALUE (A) OF THE LOAN AT FOUR DIFFERENT RATES OF INTEREST (i)

$$A = \frac{g}{i}(1 - K) + .0025\,(a_{20} - a_{10}) \text{ and } K = .05 \times a_{20} : g = .025$$

Rate per cent.	4%	3⅞%	3¾%	3⅝%
i	.040	.03875	.03750	.03625
a_{20} from tables	13.590,326,34	13.742,000,79	13.896,204,21	14.052,987,64
$.05 \times a_{20} = K$ (*a*)	.679,516,32	.687,100,04	.694,810,21	.702,649,38
$1 - K$	.320,483,68	.312,899,96	.305,189,79	.297,350,62
$.025\,(1 - K)$	.008,012,09	.007,822,49	.007,629,75	.007,433,76
$.025\,(1 - K) \div i$ (*b*)	.200,302,30	.201,870,94	.203,459,85	.205,069,39
a_{20} from tables	13.590,326,34	13.742,000,79	13.896,204,21	14.052,987,64
a_{10} from tables	8.110,895,78	8.161,603,46	8.212,787,25	8.264,452,67
$a_{20} - a_{10}$	5.479,430,56	5.580,397,33	5.683,416,96	5.788,534,97
$.0025\,(a_{20} - a_{10})$ (*c*)	.013,698,57	.013,950,99	.014,208,54	.014,471,33
$A = a + b + c$ ...	.893,517,19	.902,921,97	.912,478,60	.922,190,10

AGENCY SALES

Editor, Students' Department:

SIR: I wish to thank you for the assistance rendered me by you in answer to my recent letter. However, I have one more question to ask. The above concern has two branches, i.e., two sales rooms. These branches receive shipments from us and are billed at the regular wholesale prices less a discount of seven per cent. Now at the end of each month I post the shipments in an aggregate as follows:

Cost of sales—New York.

To sales—factory.

I do not believe this is correct, since the shipments do not actually represent sales made by the factory. However, I am following the plan by which the books have been kept for years.

The sales made by the branches are reported to the factory and my entry is:

Accounts receivable—stores.

To sales—New York.

Will you kindly explain what would be the correct manner of showing these transactions on the books, and also how the allowance of seven per cent. should be shown?

Yours very truly,
New York. T. K.

Unless there is some very good reason for billing the branch at wholesale price less seven per cent., it would be desirable to abandon the system and bill at cost to avoid the element of unrealized profit. Shipments to selling agencies are not sales, and the accounts should be kept in such a manner as to avoid taking up any profit before the agency sells the goods.

It is possible that the goods are billed to the agency at wholesale price less seven per cent. to keep the agency from knowing the cost of the goods. If this is the only reason, the accounts may be kept as follows, assuming the following facts for purposes of illustration:

Cost of manufacture: $70.00 each.
Wholesale price: $100.00 each.
Billed price: $93.00 each.
75 shipped to New York office.
Cost: $70.00 × 75 = $5,250.00.
Billed price: $93.00 × 75 = $6,975.00.
50 sold by New York office.
Cost: $70.00 × 50 = $3,500.00.
Billed price: $93.00 × 50 = $4,650.00.
Selling price: $100.00 × 50 = $5,000.00.
25 in final inventory at New York office.
Cost: $70.00 × 25 = $1,750.00.
Billed price: $93.00 × 25 = $2,325.00.

JOURNAL ENTRIES

N. Y. office mdse (instead of cost of sales)	$6,975.00	
Shipments to N. Y. office (instead of sales—factory)		$6,975.00
To record billed price of goods shipped ($93 × 75)		
Accounts receivable	5,000.00	
Sales—New York		5,000.00
To record sales by agency ($100 × 50)		
Sales—New York	3,500.00	
Inventory—New York	1,750.00	
Manufacturing account (or finished goods)		5,250.00
To charge sales with cost of goods sold ($70 × 50); to set up inventory at agency at end of period ($70 × 25); and to relieve manufacturing account of cost of goods manufactured and shipped to agency ($70 × 75)		
Sales—New York	1,500.00	
Profit and loss—New York		1,500.00
Gross profit on sales ($30 × 50)		

Shipments to N. Y. office	4,650.00	
N. Y. office mdse		4,650.00

To reverse memorandum entries to the extent of the billed price of the goods sold by the agency.

It should be noted that the two accounts in the last entry are purely memoranda. Their balances should always be offsetting, and they do not appear in either the profit and loss statement or the balance-sheet.

If the practice of billing at wholesale price less seven per cent. is adopted because the agent is paid a commission based on the difference between this billed price and the actual selling price, the accounting could be modified as follows:

The first three entries and the fifth would be made as above. To reduce the balance of the sales account to the figure on which the commission is based, the following entry would be made:

Sales—New York	1,150.00	
Profit and loss—New York		1,150.00

To charge sales account with the difference between cost of sales ($3,500.00) and billed price of sales ($4,650.00), thus reducing the balance of sales account to $350.00, the profit on which the agent is allowed a commission.

Sales—New York	350.00	
Profit and loss—New York		350.00

To transfer to profit and loss the gross profit subject to commission.

Profit and loss—New York	175.00	
N. Y. agent's commission		175.00

To record commission, assuming a rate of 50% on the portion of profits subject to commissions.

At this point the profit and loss account of the agency on the home-office books would appear as follows:

PROFIT AND LOSS—NEW YORK

Agent's commission	$ 175.00	Gross profit not subject to commission	$1,150.00
		Gross profit subject to com.	350.00

Of course, if the agent always sells at the wholesale price existing at the time the goods are billed to him, the commission would be 50% (assumed rate) of 7% of the sales. The method of accounting described provides for computing and recording the commission in case the agent's selling price varies from the market wholesale at time of billing.

Interest, Packages and Appreciation

Editor, Students' Department:

Sir: The writer will greatly appreciate your kindness if you will answer the following questions through your department in The Journal of Accountancy.

1. In a manufacturing business if it is desired to allow interest on the capital invested, should such interest charge be included in the cost of production or be handled outside of the manufacturing statement?

2. In what circumstances are boxes and crates considered as a part of the cost of goods sold rather than as a selling expense?

3. Suppose an asset (land, for instance) appreciated in value $10,000.00. Can the whole or any part of such appreciated value be carried to the regular capital (earned) surplus account before the land is sold and the increase actually realized?

Yours very truly,

Allston, Massachusetts. R. H. B.

1. The accounting treatment of interest on capital would depend on the purpose for which the interest is allowed. When you say "interest on the capital invested" this implies interest on the total capital, and it is inconceivable that so much interest would be included in the cost of manufacture even by those who advocate including interest as part of the cost. In a partnership, interest is sometimes allowed on the capital as a form of division of profits. If that is the intention, the interest should be charged to profit and loss and credited to the partners as a first division of the profits in the capital ratio. It would not appear in the manufacturing account.

What you probably mean is that interest is allowed on that portion of the capital which is invested in manufacturing assets, and the object of allowing the interest is to determine the cost of production including a charge for the capital tied up in fixed assets. There has been a good deal of discussion as to whether interest should be included in the cost, and accountants are by no means agreed. If it is desired to include the interest as a cost of manufacture, the interest should be charged to manufacturing and credited to interest on manufacturing assets or some other account indicating that the interest credit does not represent an actual earning, but is merely a bookkeeping entry. At the end of the period, the interest included in the cost of goods still in the inventory should be left in the interest account as a reserve to reduce the inventory to the actual cost. The balance of the interest should be credited to profit and loss.

2. The proper treatment of boxes and crates is a difficult one to bring under general rules. Broadly speaking the test is: When does the process of manufacture end? In the case of canned goods, the cans are a cost of manufacture because the goods are not manufactured until they are canned. The crates are a selling expense because the goods do not have to be crated until they are sold, although it may be more convenient to crate them immediately. In general, the packages in which the goods are placed when manufactured are a part of the cost of manufacture; and the cases in which the packages are packed for shipment are a selling expense.

3. There is no principle of accounting more firmly established than the one which prohibits taking a profit by writing up a fixed asset which is not being sold. For this reason the appreciation should not be credited to surplus.

I note that you speak of capital surplus as surplus from earnings. Ordinarily capital surplus is used to convey just the opposite meaning. I refer you to the answer to the next letter.

Unrealized Profit on Appraisals

Editor, Students' Department:

Sir: A few days ago I noticed, in the answer to a C. P. A. question, an expressed opinion which seems so at variance with what I have read, heard, argued and been taught that I should like your opinion on it. The question is:

"How should substantial changes in the value of capital assets be treated in the accounts in respect to surplus?"

That part of the answer which is pertinent to the point raised in this discussion reads as follows:

"It is becoming more and more common to set up a special account called 'Capital Surplus,' 'Special Surplus' or something similar, to contain surplus that does not arise from earnings. This does no harm, though it seems rather useless. The reason given for such a course is usually that if unearned surplus is mingled with earned surplus, dividends may be declared therefrom; and it is a common notion that dividends should be declared only from earnings. But this is not the case either legally or logically. If a corporation has an actual surplus, whether it appears in one account or in several, it is proper and perfectly legal to declare a dividend; if it has plenty of cash, it is ordinarily prudent as well."

In the west it is quite common to find timber and timber lands, as well as other landed property, appreciated on the books in accordance with appraisals and estimates. If the directors of a company find it desirable to increase the value of the fixed assets on the books and adopt a sound and conservative basis for establishing the value, what would be the wrong, notwithstanding the well-known prejudice among accountants against this practice?

But it has been my understanding that such increases in value are not income. They constitute merely an offsetting credit for the increased value added to the asset account. At best they might be called anticipated profits, but as such, according to accounting principles, could not properly be regarded as income subject to dividends.

It therefore seems to me that dividends paid in excess of earned surplus or surplus arising from premiums on the sale of capital stock or both would be simply a liquidation of original capital.

I shall appreciate very much your opinion as to the point involved, and your views regarding the answer quoted.

Yours truly,
R. F. R.

Portland, Oregon.

There is considerable difference of opinion among accountants as to whether extraneous profits should go into the general surplus or into a capital surplus account, but there can be no difference of opinion as to the propriety of using an unrealized profit (such as that arising from an appreciation in the value of a fixed asset or of timber lands, as disclosed by an appraisal but not realized by a sale), for dividend purposes.

In my opinion a distinction should be made in the accounts as follows:

Realized profits from operations;
Realized profits of an extraneous nature;
Unrealized profits.

Surplus should be credited with earned profits from operations only, and of course the entire surplus is available for dividends unless a portion of it has been appropriated for some special reason, such as an appropriation of surplus for a sinking-fund reserve connected with a bond issue or an appropriation of surplus to conserve funds for an extension of the plant.

Realized profits of an extraneous nature and other extraneous increments to surplus should be credited to a capital surplus account. Profit on the sale of a fixed asset would be an earned profit of an extraneous nature; a premium on the issue of stock would be an extraneous increment to surplus although it is in no sense a profit. These realized extraneous items could be used for dividends without violating the law, although the stockholders should be informed that the dividends came from capital surplus instead of from operating profits.

Unrealized profits should not be credited to any surplus account, general or capital, because they are not realized increments of surplus and are not available for dividends. They should be credited to such an account as reserve for appreciation of real estate or reserve for appreciation of timber lands. If the reserve is set up because of the revaluation of a fixed asset on the basis of an appraisal, it should be held on the books until disposition of the asset. At that time, if the price realized is less than the debit in the asset account, the difference is charged first to the reserve for depreciation and the remainder to the reserve for appreciation. Any balance remaining in the reserve for appreciation would then be a realized extraneous profit to be transferred to capital surplus. If the reserve is set up against timber lands which are being stripped, and the timber is being sold, the reserve would be gradually transferred into an earned operating profit by the sale of the timber, and it should be gradually closed to general surplus through the profit and loss account as sales are made.

It is not obligatory to keep a capital surplus account. As all realized profits are available for dividends whether arising from regular operations or not, all profits can be credited to surplus. But if a capital surplus is kept, it seems imperative to credit it with actually realized items only. When the account is credited with realized extraneous profits, which are available for dividends, and with unrealized profits, which are not available for dividends, the account will have to be analyzed to determine what dividends can be paid and charged to it.

Stock Issued for Liberty Bonds

Editor, Students' Department:

Sir: I submit for your consideration in the Journal the following question: Is capital stock paid in Liberty bonds considered to be fully or partly paid? Liberty bonds at the present time have depreciated considerably in the market but the directors of a corporation have decided to accept them in payment for new capital stock at their face value.

Very truly yours,

Waterbury, Connecticut. H. G.

The directors of a corporation are the judges of the value of the property which they accept for stock, and unless there is evidence of

fraud a court will not go behind the values fixed by them. Hence they have a right to issue the stock for Liberty bonds at par, and the corporation itself would be estopped from claiming that the subscribers had not paid their subscriptions in full. In other words the corporation could not make another assessment on the stock if it had been issued as fully paid and non-assessable.

While the corporation itself could not claim that the stock had not been fully paid, the creditors might do so. Whether they could get a court to agree with them or not is another thing. In the first place they would have to prove fraud, and in the second place there would be a serious practical difficulty in determining the value of the Liberty bonds and thus fixing the liability of the stockholders to creditors.

Anonymous Letters

It seems necessary once more to call the attention of readers of this department to the fact that no letter will receive the attention of the editor unless it is signed. Only the initials of the correspondent will be printed in the Journal if the writer requests that his name shall not appear.

Book Reviews

THE MODERN TRUST COMPANY, by Franklin Butler Kirkbride, J. E. Sterrett and Henry Parker Willis. Fifth edition. *The Macmillan Company,* New York. 550 pp.

Like the visit of an old friend comes the fifth edition of Kirkbride and Sterrett's complete and authoritative manual, *The Modern Trust Company.* Longer ago than he likes to recall, the writer spent many evenings poring over an early edition of this book in a strenuous attempt to cover the whole field of accounting preparatory to taking the C. P. A. examination, and because the examination paper contained two questions on bank accounting he could not have answered otherwise, he has always felt warmly grateful to the authors. What he thought of the book at that time, however, was lately very succinctly expressed by the teller of his local bank to whom he had lent the book for home study: "I never knew before how much there was to know about trust companies." The reviewer feels that he cannot better that appreciation. Only by actual experience or long observation at close hand can one realize the immense amount of detail involved in running a trust company or writing a book about it.

The functions of a trust company, how it is organized, the duties of the officers, the division of the work among various departments, the methods of work, the duties of clerks and employees down to the night-watchman and cleaners—all these are fully and exhaustively covered. The accounting of each department is given in ample detail, and a chapter on "General accounting" describes how they are all "tied in" to the general ledger and internal auditing checks provided through the controller. In view of the traditional conservatism in methods of banks and trust companies one does not look for nor find any radical changes from former editions in these matters.

But since the last edition there has been a very important step taken by the country which materially affects trust companies—the passage of the federal reserve act. This act authorizes national banks to engage in trust functions, thus opening a field hitherto monopolized by the trust companies. It also permits trust companies to become members of the federal reserve system, thus bringing such companies for the first time under federal control. At the end of 1919 nearly half the two thousand and odd trust companies of the country had joined the system, and it is a pretty safe guess that in time they will all be in the fold. Naturally no textbook on trust companies can be considered complete without a study of the federal reserve system and its effect on the trust company. This element is supplied in this new edition by Mr. Willis, formerly expert advisor to the house committee on banking and later the first secretary of the reserve board. His chapters on the principles, methods and practice of the federal reserve system are interesting and instructive. Although eight years have passed since the system was established there is still considerable haziness in the minds of the general public on the subject.

The student of accountancy who wishes to be thoroughly up-to-date will do well to post himself by Mr. Willis's clarifying chapters.

For many years the trust companies have been engaging in general banking in competition with the national and commercial banks. Now we have the national banks taking on trust functions. The logical conclusion is, as Mr. Willis puts it, that "events are rapidly moving toward the development of a composite type of institution which will perform the functions of both the bank and the trust company." We should say it is already here. The modern trust company seems to be doing about everything a national bank does except to issue its own notes. And does it not do even that indirectly?

W. H. LAWTON.

THE BUSINESS MAN'S ENGLISH, by WALLACE EDGAR BARTHOLOMEW and FLOYD HURLBUT. *The Macmillan Company,* New York.

The Business Man's English is a convenient little manual of English as it should be spoken and written. The first half of it is devoted to drill-work for commercial high-school students and consists mainly of common errors in construction, pronunciation and spelling with parallel corrections. The authors appear to proceed on the two fundamental principles that the use of correct English is a matter of habit, and that a horrible example is more effective than any amount of memorizing of technical rules. The remainder of the book deals with office correspondence and procedure in more or less detail. While intended primarily for a school textbook it may be recommended as a quick reference book for the office worker who lacks thorough training or has become mentally careless.

W. H. LAWTON.

JOHN ROBERT SPARROW

John Robert Sparrow, member of the American Institute of Accountants, certified public accountant, senior partner of the firm of Sparrow, Harvey & Co., New York, died Saturday, April 9, 1921.

Mr. Sparrow was one of the leaders of the accounting profession and had been active in the work of the state board of accountancy and the New York State Society of Certified Public Accountants, as well as in the national organization. He was one of the outstanding personalities in the profession in New York.

Connecticut State Society of Certified Public Accountants

At the annual meeting of the Connecticut State Society of Certified Public Accountants at New Haven, April 13, 1921, the following officers were elected: President, Leonard M. Troub; vice-president, Charles F. Coates; secretary, Milon M. Stone; treasurer, Frederick W. Child; auditor, Edward J. Paul.

The secretary's report indicates that the society consists of 68 members, 15 of whom were admitted during the past year.

A resolution was adopted instructing the committee on state legislation to oppose any change in the status of the state board of accountancy which would interfere with the technical character of its work now under strict control of the accounting profession.

It was reported that there are now 36 certified public accountants in practice in Connecticut.

Arthur H. Holmberg and John A. Ryan announce the formation of a partnership under the firm name of Holmberg, Ryan & Co. with offices at 43 Tremont street, Boston, Massachusetts.

Ward, Fisher, Carpenter & Philbrick, Providence, Rhode Island, announce the withdrawal from the firm of Hamilton L. Carpenter and Arthur L. Philbrick.

Whitfield, Whitcomb & Co. announce the opening of offices at Main and Second streets, Walla Walla, Washington, and 112 East Court street, Pendleton, Oregon.

George Lormer announces that he is returning to Australia, where he will resume public practice after June 30th at 235 Collins street, Melbourne.

Moyer & Briggs announce the removal of their offices to the Boston Safe Deposit and Trust Company building, Boston, Massachusetts.

Hamilton L. Carpenter and Thomas E. Tefft announce the opening of an office at 743 Grosvenor building, Providence, Rhode Island.

W. R. Blackman announces the removal of his office to Los Angeles Stock Exchange building, Los Angeles, California.

Irving H. Avin announces the removal of his office from 39 Cortlandt street to 200 Fifth avenue, New York.

Cooley & Marvin Co. announce the opening of a branch office in the Munsey building, Baltimore, Maryland.

Scovell, Wellington & Co. announce the removal of their Cleveland office to 1168 Hanna building.

Albert H. Welton announces the opening of offices at 105 West Monroe street, Chicago, Illinois.

Accountants' Index

COMPILED IN THE LIBRARY OF THE AMERICAN INSTITUTE OF ACCOUNTANTS

In response to many requests, the American Institute of Accountants authorized the publication in book form of the bibliographies on accounting and allied literature compiled in the library of the institute.

As a supplement to this work, and in order to keep the index current, the institute now establishes a monthly service section in THE JOURNAL OF ACCOUNTANCY, containing references to accounting matter not appearing in this magazine.

This supplement is classified under subjects with the following essential points of information:

(1) Author.
(2) Title.
(3) Place of publication.
(4) Publisher.
(5) Date of publication.
(6) Paging.

By this means the reader may turn quickly to the subject of special interest and learn promptly of important articles published on this subject.

It must be understood that the institute does not endorse all articles listed and that the inclusion is for reference only.

Most of the books and articles listed may be found in the library of the institute or in any large public library.

CURRENT LITERATURE

ACCOUNTING

Accountancy and Business Management; prepared by a corps of auditors, accountants, attorneys, and specialists in business methods and management. 7 v. Chicago, American Technical Society, 1920. $29.80.

Dawson, Sidney S., and R. C. de Zouche. *Accounting.* London, Sir Isaac Pitman & Sons. 283 p. $4.

CONTENTS: Accounting records; Single entry; Stock and stores accounts; Analysis of transactions; Agents' accounts; Consignment accounts; Departmental accounts; Branch accounts; Partnership accounts; Executorship accounts; Company accounts; Statement of affairs and deficiency account; Cost accounts; Single and double account; Depreciation; Reserves and reserve funds and sinking funds.

Problems

Esquerré, Paul Joseph. *Practical Accounting Problems; their Discussion and Solutions.* Pt. 1. New York, The Ronald Press Co., 1921. 350 p. $10.

AGRICULTURE

Accounting

Ladd, C. E. *System of Farm Cost Accounting;* revised by James S. Ball. Washington, Government Printing Office, 1920. (Agricultural Department Farmers' Bulletin 572.)

AUDITING

Binnie, Andrew. *Audit Programmes and Procedure.* ACCOUNTANTS' JOURNAL, April, 1921, p. 728-31.

Dicksee, Lawrence R. *Fundamentals of Accountancy.* Pt. 12. ACCOUNTANTS' JOURNAL, April, 1921, p. 724-7.

AUTOMOBILES

Cost of operation

Cost of Operating Six-ton Truck in Moving Coal. ENGINEERING AND CONTRACTING, March 16, 1921, p. 266.

BANKS AND BANKING

Accounting

George, Roland J. *Accounting as Applied to Letters of Credit.* BANKERS' MONTHLY, April, 1921, p. 26-7.

BANKS AND BANKING, TRUST COMPANIES

Accounting

Vollertsen, E. P. *Fiduciary Accounting, Corporate Trust Department.* JOURNAL OF THE AMERICAN BANKERS' ASSOCIATION, March, 1921. p. 598-602.

BUDGETS

McKinsey, James O. *Production Budget.* ADMINISTRATION, March, 1921, p. 358-67.

Municipal

City Budget at a Glance; two methods of presenting financial results. AMERICAN CITY, March, 1921, p. 299-303.

BUILDING AND LOAN ASSOCIATIONS

Rosenthal, Henry S. *Cyclopedia of Building, Loan and Savings Associations;* how to organize and successfully conduct them. Ed. 4, revised and enlarged. 15 W. 6th street. THE AUTHOR, 1920. 500 p. $7.50.

CEMENT

Costs

Actual Costs of Cement Manufacture and Estimated Costs for a State-owned Plant. ENGINEERING AND CONTRACTING, April 6, 1921, p. 352-6. Includes also average estimated life of various properties.

COAL TRADE

Cost accounting

Chicago Coal Merchants' Association. *Various forms recommended by the Cost and Systems committee.* 1004, 417 So. Dearborn street, Chicago. 15 p. plus forms.

Cox, William Edward. *Cost Accounting for Retail Fuel Dealers.* Seattle. University of Washington, 1920. 63 p. (Bulletin general series No. 138. July, 1920.)

COST AND FACTORY ACCOUNTING

Allan, James. *Practical Costing.* BUSINESS ORGANIZATION AND MANAGEMENT, January, February, April, 1921, p. 382-4, 499-500, 75-82.

Eggleston, De Witt Carl, and Frederick B. Robinson. *Business Costs.* New York, D. Appleton & Co. $7.50.

Elbourne, Edward T. *Factory Administration and Cost Accounts;* a reference book of the principles and practice of industrial administration and costing, for present-day requirements. New ed. New York, Longmans, Green & Co., 1921. 811 p. $15.

Greeley, Harold Dudley. *Problems for the Business Executive, Accounting Problems.* ADMINISTRATION, March, 1921. p. 389-96.

Harrison, G. Charter. *Cost Accounting to Aid Production;* a practical study of scientific cost accounting. New York, The Engineering Magazine Company, 1921. 234 p. $7.50.

Lunt, H. Julius. *Manual of Cost Accounts.* London, Sir Isaac Pitman & Sons, 1920. 124 p. $2.50.

CONTENTS: Definitions; Single (output) costs; Departmental costs; Process costs; Job costing—Terminal costs; Multiple Costs; Foundry accounts; Operating (working) costs; Cost records and reports; Textile factories; Statistical presentation of results; Examination questions.

Lybrand, William M. *Cost Accounting and Its Meaning to Management.* INDUSTRIAL MANAGEMENT, April, 1921, p. 267-9.

Newman, E. W. *Functions of Costing.* ACCOUNTANT, March 19, 1921, p. 30-6.

COTTON

Moorhouse, L. A., and M. R. Cooper. *Cost of Producing Cotton;* (842 records—1918). Washington, Government Printing Office, 1920. 59 p. (United States. Department of Agriculture Bulletin No. 896.)

DEPRECIATION, DEPLETION AND OBSOLESCENCE

United States. Treasury Department. *Bulletin "F"—income tax—depreciation and obsolescence, revenue act of 1918.* Washington, Government Printing Office, 1920. 36 p.

DYES

United States. Tariff Commission. *Cost of Production in the Dye Industry, 1918 and 1919;* details of costs for a selected list of dyes and intermediates. Washington, Government Printing Office, 1920. 24 p. (Tariff information series—No. 15.)

ELECTRIC RAILROADS

Valuation

Brown, L. R. *Special Franchise Valuation.* ELECTRIC RAILWAY JOURNAL, March 26, 1921, p. 601-3.

EXECUTORS AND TRUSTEES

Accounting

Grainger, W. H. *Examination Hints on Executorship Law and Accounts.* ACCOUNTANT, March 12, 1921, p. 301-7.

Greeley, Harold Dudley. *Accounting in Decedents' Estates—System of Accounts.* ADMINISTRATION, March, 1921, p. 368-76.

FOREIGN EXCHANGE

Dickson, James. *Foreign Exchange Fluctuations.* ACCOUNTANTS' JOURNAL, April, 1921. p. 732-43.

FOUNDRIES

Cost Accounting

Steel Founders' Society of America. *Report of Committee on Costs,* July 5, 1919. 511 Magee Building, Pittsburgh, Pa. 19 p.

GOVERNMENT

Accounting

Oakey, Francis. *Principles of Government Accounting and Reporting.* New York, D. Appleton & Co., 1921. 561 p. (Institute for Government Research.) $5.

INVENTORIES

Basset, W. R. *Right and Wrong Ways to Readjust an Inventory.* SYSTEM, March, 1921, p. 365-7.

MINING AND METALLURGY

Fay, Albert H. *Glossary of the Mining and Mineral Industry.* Washington, Government Printing Office, 1920. 754 p. (United States Bureau of Mines Bulletin 95.) 75 cents.

MUNICIPAL

Accounting

Lund, Edmund. *Principles and Practice of Municipal Bookkeeping.* ACCOUNTANT, March 19, 1921, p. 325-30.

Paterson, Robert J. Ritchie. *Municipal Accounting Theory and Its Practical Application to Municipal Finance.* CANADIAN CHARTERED ACCOUNTANT, January, 1921, p. 179-84.

Auditing

Bunn, R. W. E. *Internal Audit in Relation to Financial Control.* ACCOUNTANT, March 26, 1921, p. 359-65.

PRICES

United States. Department of Labor. Bureau of Labor Statistics. *Wholesale Prices, 1890 to 1919.* Washington, Government Printing Office, 1920. 205 p. (Bulletin No. 269.)

RAILROADS

Distribution of the Railway Dollar. RAILWAY AGE, March 25, 1921, p. 807.

Gives figures compiled by the bureau of railway economics showing the distribution of railway income of class I roads in the calendar years 1917 and 1920.

Finance

Bonbright, James C. *Railroad Capitalization;* a study of the principles of regulation of railroad securities. New York, Columbia University, 1920. 206 p. (Studies in History, Economics and Public Law, Vol. XCV, No. 1, whole number 215.)

CONTENTS: Effect of capitalization on railway rates and service; Influence of capitalization on railway credit; Basis of capitalization; Shares of stock without par value; Federal regulation of railroad securities.

Valuation

Cost of Reproduction New of Steel Freight Cars; method developed by Presidents' conference committee permits ascertainment on basis of weight. RAILWAY AGE, March 11, 1921, p. 553-6.

SHIPS AND SHIPPING

MacElwee, R. S. *Training for the Steamship Business.* Washington, Government Printing Office, 1920. 49 p. (United States. Bureau of Foreign and Domestic Commerce, Miscellaneous Series No. 98.) 10 cents.

STATEMENTS

Financial

Robert Morris Associates. *Financial Statements;* an explanation in brief of a new system for their analysis from the standpoint of the creditor grantor and the business executive, by Alexander Wall. Lansdowne, Pa., The Robert Morris Associates, 1920. 12 p. $1.

SUGAR

United States. Federal Trade Commission. *Report on Sugar Supply and Prices, November 15, 1920.* Washington, Government Printing Office, 1920. 205 p. 25 cents.

TAXATION

Canada

Business Profits War Tax; Dominion Income Tax; Income War Tax Act Amended. CANADIAN CHARTERED ACCOUNTANT, January, 1921, p. 194-202.

Great Britain

Ogg, F. W. *Income Tax, Excess-Profits Duty and Corporation Profits Tax.* INCORPORATED ACCOUNTANTS' JOURNAL, April, 1921, p. 136-41.

Snelling, W. E. *Practical Income Tax;* a guide for the business man and the commercial student. Ed. 4. London, Sir Isaac Pitman & Sons, 135 p. $1.50.

New York State

Montgomery, Robert Hiester. *New York State Income Tax Procedure, 1921, Including Corporation Franchise Tax.* New York, The Ronald Press Co., 1921. 682 p. $5.

United States

Dean, W. N. *Effect of Income Taxes on Investments.* ADMINISTRATION, March, 1921, p. 309-12.

Montgomery, Robert Hiester. *Excess-profits Tax Procedure, 1921, Including Federal Capital Stock (Excise) Tax.* New York, The Ronald Press Company, 1921. 594 p. $4.

Montgomery, Robert Hiester. *Income Tax Procedure, 1921.* New York, The Ronald Press Company, 1921. 1206 p. $8.

TEA

Creighton, J. *Modern Methods and Management of the Tea Trade.* BUSINESS ORGANIZATION AND MANAGEMENT, February-April, 1921, p. 531-9, 637-42, 83-6.

WAGES, FEES, ETC.

Bonus

Premium Wage Plan in Milwaukee Shops; résumé of six years' experience with bonus pay for standardized jobs. ELECTRIC RAILWAY JOURNAL, March 19, 1921, p. 529-32.

Profit-sharing

Annan, William. *Profit-sharing.* ACCOUNTANTS' MAGAZINE, March, 1921, p. 147-72.

The Journal of Accountancy

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American Institute of Accountants

Board of Examiners

Examination in Auditing

MAY 18, 1921, 9 A. M. to 12:30 P. M.

Answer all the following questions:

1. You are engaged to make a balance-sheet audit of the A. B. Co., a corporation trading in certain patented machines, of which it owns the patents, and in certain accessory materials necessary to their operation. The company owns no plant but buys its stock-in-trade from the actual manufacturers. The bulk of its business consists of outright sales, but it also leases some of its machines at a nominal rental under contracts which bind the lessees to buy from itself all the accessory materials. It owns four patents, which are 20, 19, 18 and 5 years old respectively. For the first three patents it gave practically all of its capital stock and some cash; the remaining patent covers valuable improvements on the original machines invented by one of the officers and is assigned to the company without compensation, but the company has charged the expenditures, including part of officers' salaries, on these improvements to the property account. No amortization of the patents has ever been charged off.

On your arrival at the company's office on January 15, 1921, the following balance-sheet of December 31, 1920, is handed to you.

BALANCE-SHEET—DEC. 31, 1920

ASSETS:

(a) Cash: in banks	$....	
" petty cash fund	$....	$....
(b) Notes receivable: trade, officers' and other, mingled in one account without distinction		$....
(c) Accounts receivable: trade, officers' and other, not classified, and no provision for bad debts		$....
(d) Investments: stocks, treasury stock and Liberty and other bonds, at cost, which is higher than present market value		$....
(e) Inventories: from perpetual inventory book, no actual inventory ever having been taken		$....
(f) Contract machines: machines leased under contract, the cost values thereof being about 25% of the total amount charged to this account, the difference being said to be the cost of building up this particular part of the business in past years		$....
(g) Property account, includes cost of patents, expenditures for improvements thereon, patterns, designs, office furniture and fixtures, etc., not classified in any way		$....
Total assets		$....

LIABILITIES:

(h) Notes payable: trade and banks, not classified	$....	
(i) Accounts payable: trade	$....	
Total liabilities		$....
(j) Capital stock: authorized and outstanding	$....	
Surplus	$....	
Net worth		$....

State how you would proceed to verify each item of the foregoing balance-sheet, in view of the facts submitted, and also what steps, if any, you would require the company to take before you would sign an unqualified certificate.

(Number each answer to correspond with the item number on the balance-sheet.)

2. You are called upon to audit the accounts of December 31, 1920, of a company incorporated in the state of New York, which owns all the capital stock of two other companies, one incorporated in Great Britain and the other in Russia.

No reports have been received from the Russian company since December 31, 1917. All the intercompany transactions have been recorded on the books at the pre-war rates of exchange.

Before giving an unqualified certificate to the consolidated balance-sheet of these companies at December 31, 1920, on what basis would you require the accounts to be stated in regard to fluctuations in exchange and possible loss on

Russian assets, assuming that the balance-sheet of each company revealed the following assets and liabilities?

Goodwill	Capital stock
Plant and equipment	Accounts and notes payable
Inventories	Surplus
Accounts receivable	
Cash	

3. In auditing the accounts of a stock broker, what would be the first matters to which an auditor should direct his attention? Give reasons for your answer.

4. In auditing the December 31, 1920, balance-sheet of a textile mill, you find that there are large contractual obligations for the purchase and future delivery of raw cotton at prices considerably above the market price at that date.

Draft a letter to the client outlining your reason for wishing to qualify your certificate, if no allusion is to be made in the balance-sheet to the foregoing fact, and suggesting alternative methods of statement which would meet with your approval and enable you to append a clear certificate.

5. When conducting an audit of the accounts of a corporation, you find that no allowance has been made for depreciation on buildings, machinery and plant, and on inquiry you are met with the statement that the appreciation on real estate offsets any depreciation that may have taken place in the physical plant.

Prepare a memorandum for submission to the board of directors, setting forth your views on the subject.

6. A firm having several branches maintains in its ledger an account with each branch, and charges to such account all goods sold to the agent for stock, accounts receivable arising from sales by the branch within its territory and cash collected by the branch. At the end of the year the balance of each branch is treated as an ordinary account receivable and is included in the general debts due the firm. In certifying the accuracy of the firm's balance-sheet, would you pass such accounts receivable? If not, state what objections there are to this method and how you would deal with the accounts.

Examination in Accounting Theory and Practice
PART I.

MAY 18, 1921, 1 P. M. to 6 P. M.

Answer questions 1 and 2 and any three other questions:

1. Following are the trial balances of Company A and its subsidiaries at December 31, 1920:

DEBITS

	Co. A	Co. B	Co. C
Cash	$ 75,000	$ 50,000	$ 60,000
Accounts receivable	350,000	190,000	420,000
Notes receivable	200,000	60,000	40,000
Inventory, raw material, Jan. 1, 1920	150,000	105,000	160,000
Purchases, raw materials	650,000	400,000	510,000
Labor	450,000	320,000	370,000
Manufacturing expenses	190,000	190,000	205,000
Selling expenses	85,000	40,000	75,000
Administrative expenses	45,000	25,000	35,000
Inventory, goods in process, Jan. 1, 1920	80,000	70,000	75,000
Inventory, finished goods, January 1, 1920	90,000	65,000	80,000
Plant and equipment	900,000	400,000	750,000
Investment in stock of Company B	875,000	.....	.....
Investment in stock of Company C	1,200,000	.....	.....
	$5,340,000	$1,915,000	$2,780,000

CREDITS

Capital stock	$3,000,000	$ 500,000	$ 800,000
Notes payable	110,000	80,000	60,000
Accounts payable	100,000	65,000	250,000
Bonds payable	500,000	.....	.....
Premium on bonds	5,000	.....	.....
Reserve for depreciation	100,000	60,000	112,500
Sales	1,400,000	1,050,000	1,250,000
Surplus	125,000	160,000	307,500
	$5,340,000	$1,915,000	$2,780,000

The inventories at December 31, 1920, were:

	Co. A	Co. B	Co. C
Raw material	$280,000	$175,000	$210,000
Goods in process	95,000	80,000	85,000
Finished goods	135,000	145,000	105,000

Company A purchased the entire stock issues of Companies B and C at January 1, 1920, at the prices shown in the trial balance. During the year each of the three companies declared and paid a 5 per cent. dividend. Company A took up its dividends from Companies B and C by credits to surplus. The various entries for the dividends were the only entries affecting the surplus accounts during the year.

At December 31, 1919, Company A's inventory of raw material included goods purchased from Company B at a price of $60,000, the cost thereof to Company B being $40,000.

At the same date Company B's inventory of raw material included goods purchased from Company C for $75,000 on which Company C made a profit of $25,000.

During 1920, Company C sold goods to Company B at a price of $200,000. These goods cost Company C $160,000. Company B still owes $30,000 on these purchases, the indebtedness being included in the accounts payable.

During 1920, Company B sold goods to Company A at a cost of $300,000 and at a selling price of $375,000. Company A made cash advances totaling $400,000 to Company B during the year. The sales just mentioned were charged against the advances account, the $25,000 balance of which is included in Company B's accounts payable.

The inventories at December 31, 1920, include inter-company profits as follows:

	Raw material	Goods in process	Finished goods
Company A	$20,000	$5,000	$4,000
Company B	30,000	6,000	5,000

Company A's bonds were issued July 1, 1920. They bear 5 per cent. interest, payable semi-annually and mature in five years. No interest has been paid.

Allow depreciation at 5 per cent. per annum on the cost of the fixed assets.

Prepare the following consolidated statements:

Cost of goods manufactured and sold.

Profit and loss statement.

Surplus statement (showing as the final balance therein the surplus balance appearing in the consolidated balance-sheet).

Balance-sheet.

2. Prepare a statement of resources and their application for the 12 months ended December 31, 1920, using the following data.

THE HALL MANUFACTURING COMPANY—BALANCE-SHEETS

ASSETS

	Dec. 31, 1919	Dec. 31, 1920
Cash	$ 5,000	$ 1,800
Accounts receivable	30,000	32,000
Raw material	12,000	14,500
Goods in process	16,000	17,500
Finished goods	21,000	19,000
Land	70,000	100,000
Buildings	115,000	170,000
Machinery	90,000	100,000
Tools	26,000	23,000
Patents	30,000	28,000
Discount on bonds	.....	2,000
Investment in stocks	25,000	.....
Advances to salesmen	500	1,000
Unexpired insurance	300	250
	$440,800	$509,050

LIABILITIES

Accounts payable	$ 35,000	$ 10,000
Notes payable	25,000	5,000
Bank loans	20,000	.....
Bonds payable	200,000	300,000
Reserve for depreciation, buildings and machinery	20,000	29,000
Reserve for bad debts	1,200	1,500
Reserve for construction	16,000	20,000
Capital stock	100,000	100,000
Surplus	23,600	43,550
	$440,800	$509,050

Following is an abstract of the surplus account:

		Dec. 31, 1919	Dec. 31, 1920
Balance, January 1, 1920			$23,600
Add net profit for 1920			8,950
" appraisal increase in land			30,000
Total			62,550
Deduct credit to reserve for construction	$4,000		
Dividends paid December 31, 1920	15,000		19,000
Balance, December 31, 1920			43,550

Depreciation was provided during the year as follows:

Credited to reserve for depreciation, buildings and machinery	$10,000
Written off from tools	5,000
Written off from patents	2,000

During the year machinery which cost $7,000 was sold for $6,000. The loss was absorbed in the reserve for depreciation.

3. A, B, C and D have decided to dissolve partnership. To that end they have liquidated all their liabilities, and at the date of the first division of cash among the partners the conditions are as follows:

Partners	Capitals	Loans	Profit and loss ratio
A	$22,000	$ 7,000	40%
B	19,000	6,000	30%
C	12,000	14,000	20%
D	7,000	13,000	10%
Totals	$60,000	$40,000	100%

Cash available for distribution	$20,000
Other assets not yet realized (of doubtful value)	80,000
	$100,000

State which partners should participate in the distribution of the $20,000; how much cash each should receive; whether the payments should be applied against the capital accounts or the loan accounts. Explain the procedure of determining the distribution. Assume that none of the partners has any private property.

4. (a) Determine the average life of the following fixed assets belonging to the Western Hardware Company:

Assets	Cost	Estimated scrap value	Estimated life in years
Buildings	$100,000	$35,000	20
Machinery	70,000	25,000	15
Tools	20,000	5,000	10
Patterns	10,000	.....	8

(b) After determining the average life of the fixed assets, state the amount of annual depreciation by the straight-line method.

5. (a) A company with $500,000 of common capital stock, par value $100 a share, and a surplus account of $100,000 decides to change its capitalization from a par to a no-par basis. It therefore calls in its 5,000 shares of par value stock and issues in place thereof 10,000 shares of no-par-value stock. How should the transaction be recorded? What effect, if any, will the change to a no-par-value basis have on the surplus account?

(b) Suppose that a new company is organized with 10,000 shares of no-par-value stock and that this new company takes over all the assets and liabilities of the old company at their book value, issuing all of its capital stock in payment therefor.

How would the transaction be recorded on the books of the new company?

6. Define the following:

(a) Income bond.
(b) Co-insurance clause.
(c) Amortization.
(d) Residuary legatee.
(e) Working capital.
(f) Contingent reserve.
(g) Turnover.
(h) Subsidiary company.
(i) Interdepartmental profit.
(j) Franchise.

ACTUARIAL PROBLEM (OPTIONAL)

7. A company has acquired machinery, which cost $100,000, which it expects to be able to use for 10 years. The scrap value at the end of that time is estimated at $25,000. A bond issue of $75,000 due in 10 years, bearing 6 per cent. interest and secured by a mortgage on the machinery, was floated at 98 soon after the purchase of the machinery. The trust indenture requires that at the end of each year, before the payment of dividends, a sum shall be set aside and charged against earnings sufficient to provide a sinking fund on a 5 per cent. basis for the redemption of the bonds at maturity.

The president of the company is in favor of providing a reserve for depreciation on the machinery by the sinking-fund method, using 5 per cent. as a basis, although he does not advocate creating a replacement fund for the machinery as well as a sinking fund for the bonds. The treasurer contends that it is not necessary to provide any reserve for depreciation, asserting as his reason that the creation of a sinking-fund reserve and a reserve for depreciation would involve a double charge against profits and, further, that as the sinking-fund reserve is obligatory the depreciation reserve is not required.

(a) Compute the amount of the annual contribution to the sinking fund for the redemption of the bonds.

(b) Set up a table showing the accumulation of the fund, on the assumption that it earned exactly 5 per cent.

Also indicate the annual entries for the sinking fund and for the sinking-fund reserve.

(c) Give your opinion as to whether or not there should be a reserve for depreciation as well as a sinking-fund reserve. If the sinking-fund reserve is sufficient, what disposition will eventually be made of it? If two reserves are necessary, when and in what manner will they be closed out?

$1.05^{10} = 1.62889463$.

Examination in Commercial Law

MAY 19, 1921, 9 A. M. to 12:30 P. M.

Give reasons for all answers.

NEGOTIABLE INSTRUMENTS

Answer three of the following four questions:

1. The R. I. Company gave the following note in payment for goods purchased:

   $7,500. Albany, N. Y., June 1, 1920.

   Three months after date we promise to pay to the order of A. B. Corporation seventy-five hundred dollars at the Albany Trust Company. Value received.

   JOHN SMITH, *Pres.*
   ELMER H. BROWN, *Treas.*

   The note was written on a blank note across the margin of which appeared the words "R. I. Company." The note was discounted for the payee by the Citizens National Bank and upon non-payment thereof the bank brought suit against Smith and Brown. Could the bank recover?

2. What constitutes a party a holder of a negotiable instrument (a) for value, (b) in due course?

3. What are the liabilities of a person who negotiates an instrument (a) by delivery, (b) by indorsement without qualification?

4. Define a bill of exchange.

CONTRACTS

Answer two of the following three questions:

5. X, a New York dealer, purchased 25 barrels of specially graded and packed apples from a producer at Hood River, Oregon. These apples he afterwards resold to Y under a contract which specified an agreed price on delivery at Y's place of business in New York. The apples were shipped to X from Oregon but, through no fault of either X or Y, were totally destroyed before reaching New York. Is there any liability resting upon X?

6. On January 31, 1921, Travis & Wood, commission merchants at Buffalo, N. Y., wrote a letter to Vassar & Camp at New York, offering to sell 500 gallons of linseed oil at a certain

price per gallon. The letter was received by Vassar & Camp on February 2, 1921, and they on the same day mailed a reply to Travis & Wood, accepting the offer and giving directions as to shipment. On February 3, before the receipt of the acceptance, Travis & Wood telegraphed, revoking the offer.

Was the revocation effectual to prevent the consummation of the agreement?

7. Define an express warranty.

PARTNERSHIP

Answer one of the following two questions:

8. George B. Lewis was a special partner in the limited partnership of Bradley & Smith, his contribution to capital being the sum of $50,000. Under the provisions of the co-partnership agreement, the partnership expired January 6, 1921. On January 7, 1921, Lewis received from the firm the sum of $50,000, thus withdrawing his contribution to capital. James A. Grant, to whom the firm had become indebted in the sum of $75,000, who had been unable to collect his debt, sued the co-partnership in February, 1921, naming as defendants both general partners and Lewis, the special partner.

Did Lewis have any defence to the action?

9. G and H were copartners engaged in the warehouse business. H issued a warehouse receipt which represented that the firm had on storage for Nash & Son 6,500 bushels of wheat. Nash & Son, on the credit of the receipt, obtained a loan from Robbins of $4,000, the warehouse receipt being transferred to Robbins. Thereafter Robbins duly demanded the grain from G and H, when it was found that H, without knowledge of his copartners, had conspired with Nash & Son and had issued a false receipt. Robbins thereupon sued both G and H.

Was G liable in any way?

CORPORATIONS

Answer both the following questions:

10. Brown, a director of the X Realty Corporation, received from the Y Construction Company the sum of $500 in payment for Brown's services in inducing the X Realty Corporation to award a certain contract to the Y Company. The X Realty Corporation afterward learned of the payment and sued Brown, seeking to recover the amount so paid to Brown by the Y Construction Company.

Could the X Realty Corporation succeed?

11. To what extent is a corporation bound by agreements made by its promoters prior to and connected with its incorporation?

BANKRUPTCY

Answer the following question:

12. Name three "acts of bankruptcy," the commission of any one of which by an insolvent person furnishes grounds for the filing of a petition in bankruptcy.

FEDERAL INCOME TAX

Answer the following question:

13. In June, 1915, A purchased a dwelling for the sum of $15,000. He resided in the dwelling until December 1, 1920, when he sold the property at a loss. During 1920 he paid out for taxes $186, for insurance $60, for repairs $130, for interest on mortgage $250. His net loss on the sale was $1,200.

In preparing A's income-tax return for 1920, how would you treat the items specified?

Examination in Accounting Theory and Practice
PART II.

MAY 19, 1921, 1 P. M to 6 P. M.

Answer questions 1, 2 and 3 and any two other questions:

1. The trial balance of the Occidental Timber Co., on January 1, 1920, was as follows.

Cash	$ 2,618.03	
Accounts receivable	21,111.17	
Inventory	36,133.32	
Unexpired insurance	559.44	
Plant and equipment	352,109.75	
Timber and lands	551,539.31	
Preferred claims		$ 37,011.99
First mortgage bonds, 6%		212,500.00
Bond interest accrued—6 months		6,375.00
Unsecured creditors		64,471.64
Capital stock		400,000.00
Surplus		243,712.39
	$964,071.02	$964,071.02

The company, being unable to meet its current obligations, the Western Trust Co. was appointed receiver on January 1, 1920. The transactions under the receivership for the year following are hereby summarized:

Purchased logs	$ 9,646.22
(Half was bought for cash, less cash discounts, and the balance on credit)	
Operating expenses	202,972.81
Commissions	4,214.14
Demurrage	326.00
Freight, inward	585.53
General expense	4,837.40
Salaries	12,000.00
Shipping expense	13,574.10
Taxes	1,421.00

All paid in cash.

Allowance for stumpage cut amounting to $50,000 was credited to timber account. Interest on bonds to December 31, 1920, was paid in full and the outstanding bonds were reduced to $200,000, December 31, 1920, by paying off $12,500 at 101. Sales amounted to $450,000 gross, of which $300,000 was received in cash as net payment by customers.

Freight allowance to customers	$70,510.00
Discounts allowed	556.33
Discounts received	500.00
Profit from commissary	5,000.00
Sundry income	3,500.00

The accounts receivable of January 1, 1920, realized $20,000.00 net. Preferred claims were paid in full. Depreciation of $3,500.00 was allowed on plant and equipment. Unexpired insurance on December 31, 1920, amounted to $125.00. Inventories were $40,000.

Prepare realization and liquidation account, cash account and balance-sheet, December 31, 1920, also the receiver's profit

and loss account, proving the gain shown by the realization and liquidation account and showing all the elements making up the net amount.

2. You have been engaged to audit the books and accounts of the X Corporation for the calendar year 1920. The factory and other accounting records are at J; the secretarial records are at K. The company's product is made to order only.

As a result of your audit at J you have prepared the following:

CONDENSED PROFIT AND LOSS STATEMENT
For the calendar year 1920

Gross sales (shipments)	$240,000.00
Less return sales and allowances	5,000.00
Net sales	235,000.00
Deduct:	
Cost of goods sold (shipped)	153,300.00
Gross profit on sales	81,700.00
Deduct:	
Selling and administrative expense	32,675.00
Net profit on operations	49,025.00
Add:	
Net financial income	975.00
Net profit for the calendar year 1920	$ 50,000.00

Before the final preparation of your report you go to K to examine the minutes of the board of directors. Upon your examination you find in the minutes, under date of March 12, 1920, the following:

"Whereas, Mr. A, our factory superintendent, and Mr. B, our general sales manager, are devoting their entire time and attention to the affairs of the company and by their faithful devotion to its interests have increased the output of the company at the factory and the sales at K; and

"Whereas, for this reason it is the sense of the directors that the said Mr. A. and Mr. B., in addition to the amount of compensation regularly allowed them, should be further compensated;

"Therefore be it resolved that fifty (50) per cent. of the net operating profits of the X Company (after charging this additional compensation as an expense) arising from the net

shipments over and above one hundred seventy-five thousand dollars ($175,000) be divided equally between the said Mr. A. and Mr. B. as their additional compensation for the year."

Recast your profit and loss statement to give effect to the above additional information.

Show your procedure and give proof of your correctness.

3. A and B are in partnership as commodity brokers, A receiving 55 per cent. of the profits and B 45 per cent. In order to strengthen the financial statements of the firm they agreed some years ago to turn in as partnership assets certain securities held by them as individuals. Under a separate agreement, dividends on these securities as well as profits or losses from sales were to accrue to each as though separate ownership were retained. In addition the partnership as such has purchased securities which it holds as investments in the same companies.

You are furnished a trial balance of the general ledger before closing, which shows the following condition at December 31, 1920:

		Dr.	Cr.
Cash and other current assets		$320,000.00	
Securities:			
Firm	$ 50,000.00		
A	100,000.00		
B	50,000.00	200,000.00	
Office furniture and fixtures		15,000.00	
Deferred charges to profit and loss		3,000.00	
Expense accounts		40,000.00	
Accounts payable			$ 55,864.00
Notes payable			150,000.00
Capital accounts:			
A			223,500.00
B			75,000.00
Commissions and other earnings (including dividends on stocks held by firm)			70,000.00
Dividends received for personal accounts:			
A			2,000.00
B			1,636.00
		$578,000.00	$578,000.00

A statement is also handed to you of the securities held, divided between firm purchases and partners' individual holdings above mentioned as follows.

A

	Individual holdings			Partnership holdings		
	Shares	Book price	Value amount	Shares	Book price	Value amount
X Company	1280	50	$ 64,000.00	200	50	$ 10,000.00
Y Company	300	120	36,000.00	175	100	17,500.00
			$100,000.00			$ 27,500.00

TOTAL

	Shares	Value price	December 31, 1920 amount
X Company	1480	55	$81,400.00
Y Company	475	140	66,500.00
			$147,900.00

B

	Individual holdings			Partnership holdings		
	Shares	Book price	Value amount	Shares	Book price	Value amount
X Company	600	50	$ 30,000.00	164	50	$ 8,200.00
Y Company	200	100	20,000.00	143	100	14,300.00
			$ 50,000.00			$ 22,500.00

TOTAL

	Shares	Value price	December 31, 1920 amount
X Company	764	55	$ 42,020.00
Y Company	343	140	48,020.00
			$90,040.00

You are requested by the partners (1) to prepare a balance-sheet showing the actual status of each partner's investment in the business at December 31, 1920, giving effect to the appraised value of securities at that date (as indicated by the total column in the above table) and (2) to submit a scheme of capital-stock distribution between A and B, for use if the partnership should be converted into a corporation, each partner turning in his individual security holdings to such corporation.

Interest has been credited on capital accounts at 6 per cent. during the year (to A $12,600.00, to B $4,250.00) and such interest has been included among the expenses.

4. On January 1, 1920, the A. B. C. Company purchased 100 shares ($100.00 par value) of the capital stock of the X. Y. Z. Company in the open market, paying $9,000.00 therefor, and entered the item on its books as "investments."

On July 1, 1920, the X. Y. Z. Company acquired all the capital stock of the A. B. C. Company, but continued the subsidiary thus acquired as a going concern.

On November 1, 1920, the A. B. C. Company declared a dividend of 100 shares of the capital stock of the X. Y. Z. Company, payable on November 20, 1920, to stockholders of record November 15, 1920.

The market value of the X. Y. Z. stock on the dates shown was as follows:

November 1, 1920, 83⅝; November 15, 1920, 87⅞; November 20, 1920, 91.

Formulate the journal entries necessary properly to record the dividend transaction on the books of both companies and comment on the value of the shares on the books of the X. Y. Z. Company.

5. Under the terms of the mortgage securing the issue of bonds by a corporation there is a sinking-fund provision, by which 2 per cent. per annum must be turned over to the trustees, who are empowered to invest the cash in their hands in purchasing these bonds whenever they can be obtained at par or below. During the year under review they have bought $50,000 at 90 flat and received one-half year's interest thereon at 6 per cent.

   Show the entries on the company's books. Indicate whether its profit and loss or its surplus is affected by the discount and the interest.

6. How would you distinguish between:
   (a) Earned surplus,
   (b) Paid-in surplus,
   (c) Capital surplus,
   (d) Appropriated surplus?

7. What should be the procedure in determining the value of stock on hand at the time of a fire, the financial books being intact and showing the amount of an inventory taken four months prior to the fire?

Some Accounting Anomalies of Tax Laws

By F. W. Thornton

The present federal income-tax and profits-tax law was devised with the primary object of obtaining for the government an unprecedented income. Its provisions were mainly directed to that end, with perhaps an incidental consideration for specific sections of the population or of the country. In these circumstances, it is natural that the law should contain provisions having unforeseen effects on some classes of business. At this time, when revision of the law is expected, it is worth while to consider some of these unexpected effects that have not received general recognition, although they are of large amount.

Prior to the passage of the present tax laws, preferred stock of corporations received specific percentages of dividend, the whole of the remaining earnings accruing to the common stockholder. The income-tax law assesses on the entire earnings of a corporation 10 per cent. of so-called normal tax, which is handed on to the extent of 8 per cent. as a deduction from tax of the person receiving dividends on the stock. It is clear that the preferred stockholder now receives more than the original percentage agreed to be paid on his stock, the addition being the amount of exemption handed on to him to be deducted from his income tax. Apart from stock in the hands of those with incomes below $4,000, this privilege is equivalent to an addition of 8 per cent. to the value of the stock. The benefit to the preferred stockholder is given at the expense of the common stockholder. Before the tax law, the common stockholder had all the earnings after paying the prescribed percentage on preferred stock. Now he must pay his own share of normal tax and pay also for the preferred stockholder his normal tax. If the new corporation tax law should take the form of an increased flat income tax on corporations, the question would arise as to how much of this tax would be handed on as an exemption to the individual receiving dividends. If the amount should be increased above the present 8 per cent., it would constitute a further gift to the preferred stockholder at the expense of the common stockholder. No such benefit is given to a bondholder, and this is one of the reasons, not always understood but always effective, for the relatively high price of preferred stocks as compared with bonds.

First-class 7 per cent. preferred stock now sells at a price materially higher than 7 per cent. bonds—as, for instance, U. S. Steel preferred, 109; Standard Oil of New Jersey, 108—the difference being curiously close to the percentage of gain from abatement of normal tax. Seven per cent. bonds, having 2 per cent. paid at the source, of similar high standing, sell about 101-102.

When the supreme court decided that stock dividends were not taxable income there was general satisfaction among stockholders and a feeling that taxes for them had been saved. This is not necessarily so, and the reverse may be the case—will be, if the stock is sold.

If a stockholder receive a stock dividend and immediately report it as income, the tax to be paid on it is the tax on a dividend, that is, surtax only. Then, after paying surtax, the stockholder adds the amount of the stock dividend to his cost of securities. On final disposition he pays full tax only on the excess of the realization over the original cost plus the stock dividend.

Under the present ruling, however, the stockholder will pay, on final liquidation, normal tax and surtax on the entire gain. A figured example may make this clearer:

Stockholder owns 1 share costing $100. He receives another share as a stock dividend. If he now reports it for taxation he pays—surtax only—on $100. If he proceeds to sell the two shares, receiving $220, his profit, taxable in full, is $20, on which he pays normal tax and surtax; total tax in this case is normal tax on $20, surtax on $120.

But under present rulings no income accrues until final sale, when the tax would be normal tax on $120, surtax on $120, an increased tax of normal rate on $100.

One of the unfortunate effects of this is that it is an incentive to the owners to retain such stock until, at their death, the accretion of value escapes income tax, paying only inheritance tax, which it would have paid even if the stock had been sold and income tax paid on the profit before the owner's death.

It is clear that the source of the profit in the case cited above was the profit of the corporation, which had paid tax, and it should come into the hands of the stockholder free of normal tax. Indeed there seems to be some basis for a claim to this exemption when stock received as a stock dividend is sold, even under present rulings, although no such claim has been made

within my knowledge. When a stock dividend is realized in cash, does it cease to be a dividend? If the recipient sells it together with the original stock immediately on receiving it, are not the proceeds dividends to the extent of the face value of the stock dividend? And if so, does delay in selling alter the case?

If a stock dividend has been paid and the paying company at a later date liquidates, only surplus over the face value of all the stock would be allowed as dividend in computing taxes; so that at no time has the profit of the company come into the hands of the stockholder free of normal tax unless the proceeds of sale, to the extent of the face value of the stock dividend, are considered as dividends.

The only theory consistent with the ruling that stock dividends are not taxable income is that the common stockholder always owns his share of the accrued surplus but is taxable on it only when it is converted into cash. Clearly, that accrued surplus has paid income tax in the hands of the corporation and, when realized by the common stockholder, should be income subject to the dividend exemption. A common stockholder selling his stock at a profit is therefore selling accrued surplus that is entitled to the dividend exemption, and absolute justice would be done only if all profit and loss made on the sale of common stock were treated for taxation as dividends. In the end, the final holder of common stock will be taxable on the difference between the cost to him, including all the intermediate accumulated profits, and the amount received on final liquidation. All of this amount, except the original paid-in capital, is dividend, but owing to the fact that preceding holders of that stock may have sold it at successively higher prices, the final holder would receive only a diminished amount of income and could take exemption only on that amount of the final liquidation that had not already been absorbed in the profits of the previous holders of the stock.

Another irregularity arises in the short sale of stock. When a short sale is made, stock that does not really exist is brought into theoretical existence. For each share of stock sold short there is a share owned by someone, generally on margin, that is borrowed to supply the share for delivery to the purchaser in the short sale. As a rule the owner of the stock, especially if it be stock held on margin, does not know that there has been a loan of his stock. There are, then, two owners of the share—one

owning it originally, another who has purchased it from a third party who in turn has borrowed it from a broker to make delivery.

Both owners of the stock will expect to receive dividends, one of the dividends being paid out of the pocket of the person selling short. Both will take exemption on that income as dividend. It is difficult to see that anyone is to blame. The man who sells short is compelled only to pay the dividend on the stock he has sold short; the man who has just purchased the stock does not know that it is sold short and is entitled to dividend with the usual dividend exemption, and the person who owns, on margin or otherwise, the stock that has been borrowed for the purpose of the short sale also has a right to dividend with the regular exemption. There is nothing in the law to compel a man who pays dividend on stock sold short to pay to the government the normal tax on that amount; so that on the whole the government loses the amount of the normal tax on all dividends paid out of the pocket of the short seller to the purchaser of such stock. The exemption is intended to represent tax which has been paid for the stockholder by the corporation; the short seller has paid no such tax.

If the government loses, someone gains. In this case it is the short seller. He puts himself in the place of the corporation, paying dividends with tax exemption without having actually paid the tax. The corporation must pay the tax on all its earnings, so that for each dollar paid out by the corporation to stockholders the cost to the corporation is $1.08 or more. A short seller can well afford to pay $1.00 in dividends if the corporation whose stock he sells short is put to an expense of $1.08. Theoretically, he should be able, after dividend is paid, to buy the stock of the corporation for $1.08 less than before, making the $.08 profit. The corresponding anomaly when stock is sold by bucket shops will be readily seen.

Value of Graphics in an Accounting System

By W. F. Bloor

Function of Accounting Systems

The underlying reason for the growing demand and value of accountancy is the realization of the business man that an accurate analysis of his business is as essential to progress as a carefully planned sales or production organization and policy. The decisions and judgments of the successful man of business today are not, as in the past, based upon guess work or a "hunch," but upon a thorough knowledge of the past, present and future.

The method of presentation is, therefore, of much importance. Some executives, for example, require a detailed record of operations, while others need only a statement of the outstanding facts. A busy factory or sales manager is not vitally concerned with an increased cost of machine supplies in one department nor with excessive traveling expenses of a salesman. These are facts which concern only executives further down the line.

There are four general methods of presenting accounting data:

(1) By written report.
(2) By tables of figures.
(3) By graphics.
(4) By combinations of (1), (2) and (3).

Presenting business and accounting facts by a written report and statistical tables is often necessary, particularly when much detail and lengthy analyses are desired. However, when trends or tendencies or a continuous story of vital data only is desired, the graphic chart has no substitute.

Some Uses of Graphics

Pictures of facts or graphics are becoming of use in practically all activities in which man is interested. The securing of facts in the quickest time with the least effort is the main issue. It is easier to see than to think, and, therefore, it is easier to grasp a picture than a statement of facts.

The use of the graph is no new thing, but until comparatively recent date its application had been almost entirely by mathematicians, biologists and engineers in the study of the laws of science. In these fields, the data have always been so numerous as to compel graphical treatment—and in these fields great discoveries have been made by the graphical method of investigation.

During the world war, it is known that many of the great campaigns and strategic attacks were planned out almost entirely on charts. On this side, the war department and various government boards often made use of the voluminous records and statistics of those days only when graphically constructed.

Within the last few years a decided increase has become noticeable in the use of graphics by financial and trade magazines as well as by advertisers to present facts to the public. Most leading colleges of business now have courses in statistics and graphics. Lecturers, teachers, economists and accountants have all discovered the value of "picture facts."

Use of Graphics in Business

The foregoing is mentioned merely to point out the growing use and widespread application of graphics. To get back to the business executive—it is reasonable to assume that the graph can be applied to his problems as well as to others; and, as a matter of fact, a great deal better in most cases.

When one tries to draw conclusions from a column of figures, he generally finds that, more or less unconsciously, perhaps, he draws a mental picture of their meaning. This is the reason the busy and progressive executive appreciates a picture record of operations. The vital facts and comparisons stand out plainly. If a picture can be presented that will give him at a glance the exact state of his whole business, with detail subordinated in the order of its importance, so that the fundamental and important things stand boldly in the foreground where they can not be overlooked, and the less important facts, though present or readily available in the form of tables of figures, receive attention only when necessary, the executive is in a position to grasp and direct his whole business with an intelligence and sureness of control which promises a successful business with full returns to all concerned.

To a considerable extent this idea has been and at present is being carried out in many business institutions. Among the first to use graphic methods were insurance companies, railroads and similar businesses, the data of whose operations are voluminous and usable only when statistically and graphically handled.

A few years ago, some of the more progressive corporations began showing the fluctuations in the volumes of their sales from month to month by means of graphs. The efforts of the various

salesmen were compared by curves that ran a sort of race. Such methods were found to enable a continuous and at the same time complete story to be understood quickly by management and sales force alike.

Today, graphs are used to present all kinds of business facts—sales, advertising, production, costs of labor, material and overhead, efficiency of machinery and employees—in fact, all information that is of value to the management. The use and the value of these charts are not limited merely to an historical picture of what has been done. Charts, used for historical purposes only, would not justify the effort expended upon them. The most valuable use to which they can be put is to forecast the course of operation, to show trends and tendencies and to enable the management to formulate policies and map out what it proposes to do.

It has been the recent privilege of the writer to see the working and results obtained by a system of graphical charts in one of the large corporations of the country. The complete story of operations is presented to the management monthly by a system of charts planned and constructed by a central graphic department.

The management realizes that profitable production means control, and in a big business control means records, many records, the volume of which, unless they are analyzed and charted, overwhelms those who use them. Masses of figures that are available each month cannot possibly be remembered until the next month. As a result, conditions each time have to be considered largely by themselves or as contrasted with some other single month. It is not in this way that the laws underlying fluctuations in costs, in production, in sales prices or in profits can be deduced. Yet predictions as to future conditions are an impossibility unless these laws are known.

Where once voluminous reports of statistical data and figures were studied by the management, now a system of graphic charts has taken their place. If some detail or additional information, not included in the chart, is desired by the factory manager it can be obtained immediately from the accounting department. The result is that only the vital facts are presented and the factory manager is given no opportunity to let himself go astray in working out details.

During a period of business depression, when economy has become the watchword in industry, complete control of the situation has been and is in the hands of those who are responsible,

largely because they have the facts constantly before them. If the waste-cost curve, for example, of a certain production department turns sharply upward one month, the factory manager realizes it to be a danger signal; and if it continues the next month, there is no escaping the conclusion that something must be done to turn the curve downward. A conference with the superintendent, showing him the chart and the disastrous result should the present condition continue, usually brings the desired results.

It appears evident from the foregoing that graphic methods of presenting facts are becoming essential in all business and other activities of man. No matter how small the business unit, some consideration should be given to a method of presenting the facts graphically. In a small organization the system, of course, would be relatively simple as compared with a complex and complete system for a hundred-million-dollar corporation.

Location of Graphic Function

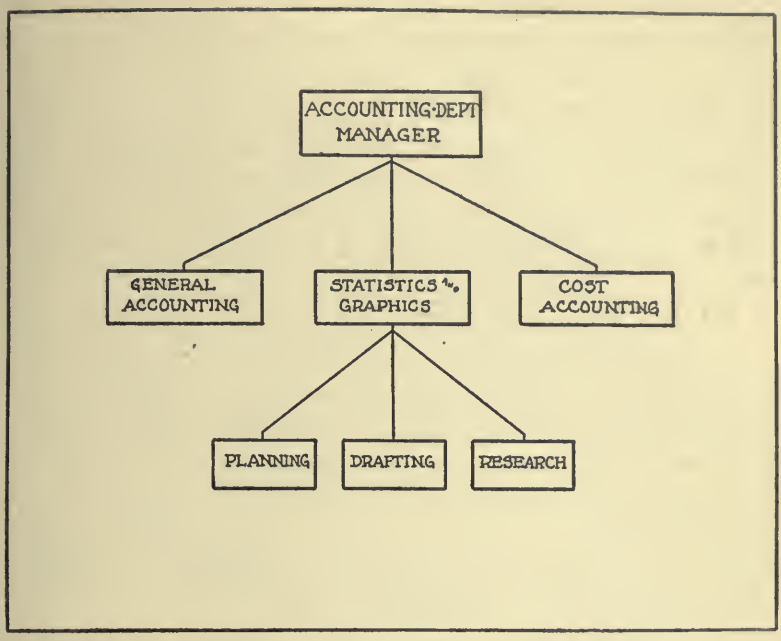
The place for the graphic function is within the accounting organization. It should, in fact, be made a part of the accounting system, for surely no system of accounts is complete that stops before the ultimate goal, namely, the presentation of results, is reached.

On the following page is exhibited an organization chart of an accounting department of a manufacturing concern, which, with slight adjustments, should apply to any business. Conditions are, of course, different in every business, but the underlying principles are identical in all. Under the department manager are three main subdivisions, namely, general accounting, cost accounting and statistics and graphics.

Work and Functions

The function of the statistical and graphic subdivision is that of collecting, compiling and analyzing statistics of production, costs, sales, profits, etc., furnished by the general and cost accounting sub-divisions, and presenting the data to the management in the most efficient manner.

External data may be coördinated with the internal statistics through research study, which is the function of the research section. Comparisons of commodity prices with wages, production of raw materials with market prices, sales with bank clearings, etc., are valuable information for executives. In fact, external data should be included as part of every graphic system. Business



and economic conditions and movements in general have direct and vital bearing on the future of any business—a fact which has been well illustrated during the past year. A business man succeeds or fails in proportion to his ability to forecast the future of the influences determining conditions in his business. Some of these influences are technical and concern his particular business without affecting others. There are other influences, however, which are of general nature and affect all business to a greater or less degree.

Many progressive executives now keep in touch with the long up and down pulls of general business by means of graphic charts based upon statistics of fundamental conditions and attempt from these pictures of past performance to forecast the future movements of business.

Advantage of Concentration

The writer has found that some advantages of having the graphic function condensed or centralized as part of the accounting department, instead of having it scattered over the organization, are the following.

(1) *Expert knowledge obtainable.* By concentration of the graphic function within the accounting department, it becomes practicable to employ expert assistance in the planning and constructing of a system of graphic charts. Much care and thought are necessary if accurate data are to be prepared in the most effective way. Charts can be made to deceive if put out in a careless manner and destroy the value of otherwise useful information and weaken the confidence of the executive in the "chart idea."

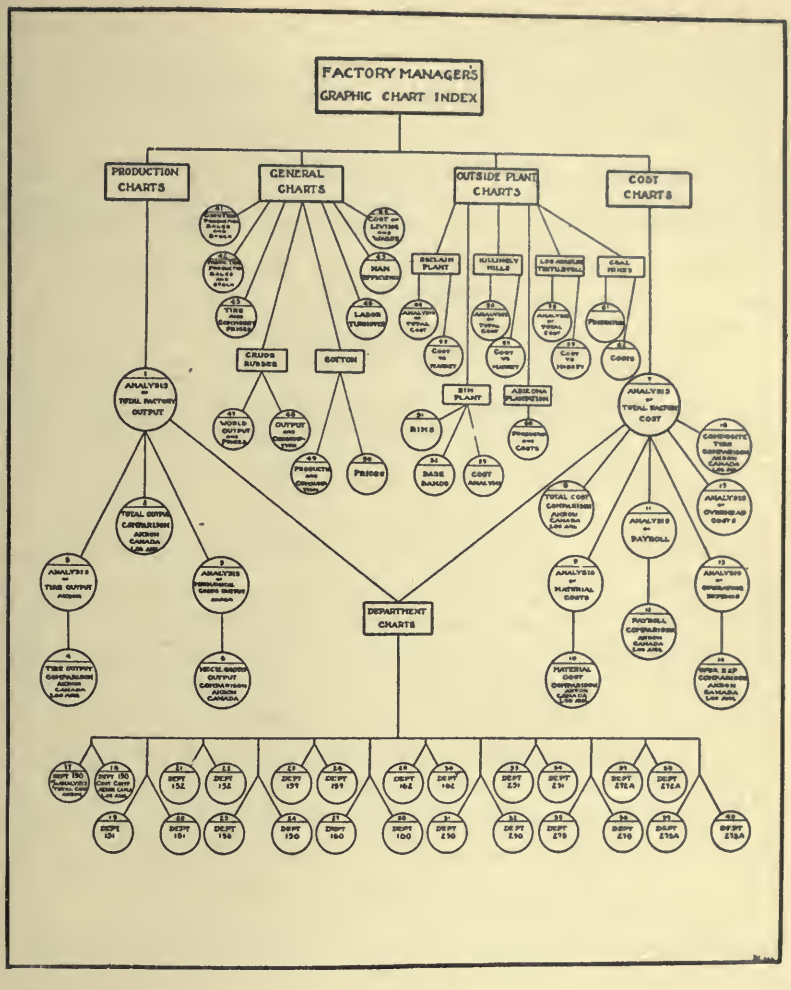
(2) *Standardization.* Charts may be constructed in all kinds of shapes, sizes and colors and the data in different scales and positions. If ten employees should be picked at random in a large organization and instructed to chart independently identical facts, there would undoubtedly result as many different ideas. It is, therefore, essential and most practical to have a central control over the methods of presenting the facts. As a result, all charts that go to the organization speak a universal language, instantaneously recognized and understood by all.

(3) *Nearness to accounting records.* With the graphic function within the accounting department, the records and data are at all times readily accessible. Not only are time and effort saved, but more accurate interpretation and knowledge of facts are possible.

(4) *Duplication of work avoided.* Today the successful executive uses and depends on charted facts to such an extent that if information is presented in any other way he will undoubtedly have it prepared in chart form by a member of his department.

(5) *Complete story and information in one place.* Concentration of the graphic function makes possible the constructing of a complete and continuous picture story of the business. A well-planned system of graphics brings to a focus for the management all the vital facts and essential operations.

On the following page is exhibited a chart of the system of graphic presentation now in use for the factory manager of the Goodyear Tire & Rubber Co. Through this system, the factory manager has at all times a vivid pictorial impression—a moving picture—of the great organization under his control. A study of the chart will show that only the essential facts are presented.



Conclusion

A system of charts is elastic and can be simplified or elaborated as much as necessary or altered to fit many requirements. Once an executive becomes accustomed to charts for the purpose of getting the story at a glance and making quick comparisons, he seldom wants to go back to figures.

As the most logical place of a system of graphics is within the accounting department of a business unit, accountants, both public and private, should give serious and careful consideration to the value and place of graphics as a means of presenting facts.

The Journal of Accountancy

Official Organ of the American Institute of Accountants

A. P. RICHARDSON Editor

EDITORIAL

Where the Dollar Goes

In April and May we published at the head of the editorial pages of this magazine the following statement of the destination of the dollar which is paid in taxes to the United States government:

To pay for past wars	*To pay for present defense*	*To pay for all other governmental activities*
68 cents	20 cents	12 cents

The purpose of this reiteration is, we believe, sufficient to relieve us of the charge of tediousness. It is high time that the peoples of the world give careful thought to the failure of governments (our own included) to find some way materially to reduce the waste of life and wealth now incurred through settlements of differences by means of war.

Naturally there is no government in the world which can escape the just accusation of extravagance. The time of the truly economic government has not yet arrived. Men have been dreaming of it from Plato to Wells—and doubtless men will continue to dream of the same Utopia. But to say that there must be extravagance is not to say that there must be such a riot of wastefulness as we have witnessed in this country.

Wars will continue until the Millennium and the cost of them will increase with the development of military science. But we doubt greatly if there will ever be justification for such lavish expenditure as marked our participation in the world war. Certainly there will be a tighter hold on the purse-strings if voters will bear in mind the striking facts which we have repeated in these pages for two months past.

The accountant has a distinct duty in this matter. He is supposed to understand, and if he is worthy the name of accountant he does understand, something of economy; and it is quite

within his province to preach the gospel of one-hundred cents' worth for every dollar spent.

It is futile to complain of the lack of economy during a time of storm and stress. The time to economize is not when the house is burning. It should be done before. During 1917 and 1918 costs and values were of necessity secondary considerations.

It is idle to lament the loss of national wealth, with its resultant debasement of the dollar and encouragement of extravagantly paid idleness posing as labor. All we can do now is to remember the horrible example, put our shoulders under the burden and do our utmost to get things back to normal and bring the dollar to something resembling its traditional value.

Schools of Accountancy

Since publishing editorial comment in a recent issue of THE JOURNAL OF ACCOUNTANCY on the subject *Schools and Schools,* we have been almost overwhelmed by inquiries as to the respective merits of various schools.

Some of these inquiries could have been answered without a moment's hesitation, because the organizations mentioned are so notoriously undesirable that it would have been quite a simple matter to say so. There are other inquiries which deal with schools of which we have never heard. There are yet others which offer a blanket inquiry as to what schools are considered desirable. THE JOURNAL OF ACCOUNTANCY must refuse to answer questions of this kind. It may seem ungracious to decline information when the question is asked in good faith and is evidently due to a commendable effort to obtain only the best instruction. But the refusal is unavoidable. If THE JOURNAL OF ACCOUNTANCY were to attempt to go into the merits and demerits of every correspondence and resident course of instruction there would be little time left for the staff of the magazine to perform its more important functions.

The best answer that can be given to the general inquiry is a suggestion that the prospective student consider not the merits claimed by the directors of the various schools but the results which have been achieved by persons of their acquaintance who have taken such instruction. In other words we would say to

the inquirer: "Don't believe everything a school tells you. Investigate for yourself. Find out if reputable men are active in the administration of affairs. Above all, be sure to avoid any school which holds out inducements that seem to your commonsense unlikely of fulfilment."

It might also be added that the applicant should bear in mind that no school can make an accountant of him if he has not the God-given ability, the honesty and the persistence which are required.

"The Stable Money League"

We recently received a circular bearing the title *The Stable Money League*. At first glance it appeared that this had something to do with the race course. But it is really a more serious if less substantial affair.

Upon looking over the document more carefully we discovered a long list of persons who are described as proponents of "The Stable Money League." There are ex-governors and various other kinds of exes, and there is a numerous company of school and university instructors, and there are also some names of practical persons who should know what they are doing.

The matter would have attracted no lasting attention had it not been for the fact that it seemed to have something to do with economics and therefore might have a bearing on accountancy.

Careful review of the document shows that it is largely based upon the ideas of Professor Irving Fisher of Yale, who has evolved the thought, which is not altogether original, that the dollar or other monetary unit should conform to the value of the thing purchased. It is a beautiful theory, this notion of a fluctuating dollar. It is the kind of thing that would bring unspeakable joy to anyone who enjoys frolicking with the differential calculus. It might even appeal to retired college professors of speculative tendencies. When Professor Fisher's book *Stabilizing the Dollar* was published it did not seem likely that it would do any great harm and it probably made Professor Fisher feel much better to have produced it. The amazing thing to us is that it should have received such serious attention as to lead to "The Stable Money League."

One sentence in the prospectus appeals to us largely: "There will be a grade of membership to fit every size of pocketbook and

every degree of interest." Quite consistently the grades of membership are to fluctuate with the bobbing dollar. The member with few dollars will find them worth so much more than the dollars of the member who has many that the poor shall be rich and the rich poor, and all will be level, and we shall reach what Don Marquis calls his Almost Perfect State—at least it shall be so in "The Stable Money League."

Competitive Bidding

The readers of this magazine comprise not only accountants but a great many business men and leaders of industry. Many of the subjects discussed in the editorial pages of the magazine are primarily of interest to accountants and to others directly or indirectly concerned with accounting. But there are many matters which are of as great interest to the man of business as to the professional practitioner, and one of these is the question of competitive bidding which has been frequently considered here.

The accountant who enters into competition with his professional confrères is likely to be so desirous of obtaining an engagement that he will undertake work at a price which cannot produce a profit if the work be properly done. It is at this point that the man of business becomes interested in anything that will tend to abolish professional competition.

The arguments have been put forward many times, but occasionally it is well to return to the subject. Recently we have received copy of a letter written by an eminent accountant to the audit committee of a national bank in a distant part of the country. The letter is so clear and incisive that we present it for the information of readers in the hope that if any reader still clings to the idea that competitive bidding is wise he may repent and be converted:

> We have to acknowledge the receipt of your letter of May 9th asking us to make a flat price for an audit of the bank.
>
> In a separate memorandum we are making some suggestions in respect of the audit programme which was enclosed in your letter.
>
> The writer of this letter would like to direct your attention with candor and in seriousness to the method you seem to have adopted for determining the selection of your auditors. We hazard the statement that no reputable firm of high standing will make a competitive bid for a professional engagement. The rendering of a professional service differs from an ordinary commercial proposition which may lend itself to competition.
>
> Were you to retain a lawyer or consult a physician, you would not shop around or ask for bids. You would call in a professional in whom you had

confidence and take his advice. If he served you well you would be likely to engage him again when you had need for his services. Should your judgment prove faulty you would be more careful another time.

Permit us to ask you to make some inquiries about the professional ethics applicable to the relation of accountant and client. We are satisfied that such an inquiry will dissuade you from either asking for bids or asking that a service be rendered on the basis of a flat price, at least until after the accountant has been your auditor long enough to be entirely familiar with the conditions and circumstances surrounding the engagement. This involves the condition of the records, the system of accounts and the bookkeeping machinery employed, the personnel, the methods of internal check and many other circumstances.

Pardon this blunt, but nevertheless candid and sincere, criticism of your courteous and kindly letter. We could not forego the opportunity of taking advantage of your inquiry to engage in a little educational propaganda.

American Institute of Accountants

REGIONAL MEETING, DETROIT, MICHIGAN, APRIL 8, 1921

A regional meeting of the American Institute of Accountants was held at the Hotel Statler, Detroit, Michigan, Friday, April 8, 1921.

There were 165 registrations representing the following states: Illinois, 12; Indiana, 5; Iowa, 3; Kentucky, 1; Michigan, 110; Minnesota, 1; Missouri, 2; Ohio, 25; Ontario, 3; Wisconsin, 3.

The meeting was called to order at 10 a. m. by Frederic A. Tilton.

An address of welcome was delivered by Henry Steffens, comptroller of the city of Detroit.

Mr. Tilton was unanimously elected chairman of the meeting.

D. W. Springer delivered an address on the *Educational Requirements for Public Accountants.*

The meeting adjourned for lunch.

At two o'clock a paper entitled *The Profits and Financing of Manufacturing Corporations* was read by E. Elmer Staub.

The paper was followed by a general discussion opened by Franklin Bowman.

A paper entitled *Treatment of Overhead When Production Is Below Normal* was read by C. B. Williams and followed by a general discussion, led by Robert L. Turner.

L. H. Olson delivered an address on the subject *Appraisals and Income Taxes.*

The discussion was opened by William C. Rowland.

P. L. Billings, on behalf of the accountants of Iowa, extended an invitation to hold the next mid-west regional meeting at Des Moines in November.

The invitation was accepted with thanks.

The second Friday in November was selected as the time of meeting.

The following advisory committee for the next meeting was elected: P. L. Billings, chairman, Iowa; Albert T. Bacon, Illinois; Cyril N. Bullock, Michigan; Page Lawrence, Missouri; James C. Mahon, Kentucky; George S. Olive, Indiana; C. I. Smith, Wisconsin; Herbert M. Temple, Minnesota; C. B. Williams, Ohio.

A vote of thanks to the committee on arrangements was unanimously adopted.

The meeting adjourned.

A banquet was held in the evening, at which Frederick W. Morton was toastmaster.

The following addresses were delivered:

The Aims of the Institute, by Carl H. Nau; *Traditions of the Profession and Their Keeping,* by Edward E. Gore; *Some Recent Income-tax Decisions,* by Archibald Broomfield.

Income-tax Department

EDITED BY STEPHEN G. RUSK

We publish this month the much discussed decision of the United States supreme court relative to taxing income arising from sale of capital assets. The subject matter of this decision and the conclusions are of first importance to accountants. This fact has been borne in upon us by the number of requests that have been received by this department to furnish the full text of the decision.

The conclusions of the court are in accordance with best accounting principles and thought, and, like the decision respecting stock dividends, are received with much satisfaction by the accountancy profession.

This issue also contains a number of treasury decisions that should interest the readers of THE JOURNAL OF ACCOUNTANCY, among which we wish to single out No. 3159. This decision deals with a question that is met frequently by accountants.

In the case cited, a receiver of a railroad received in 1918 a lump sum as extra compensation for his services rendered over a period of five years. It had been his habit to make his income-tax return on a cash-receipts-and-disbursements basis, but upon receiving the lump sum aforementioned he sought to make amended returns for the years of his service upon the theory that a pro rata share of the extra compensation had accrued to him each year. This method of handling his tax problems was denied by the court hearing his plea.

Because the *Income-tax Department* has used more than its allotted space in this month's issue, no further comment upon the treasury decisions published will be made, but we urge a careful reading of them, as they are all instructive.

SUPREME COURT OF THE UNITED STATES

No. 608.—OCTOBER TERM, 1920

The Merchants' Loan & Trust Company, as trustee of the estate of Arthur Ryerson, deceased, plaintiff in error, *vs.* Julius F. Smietanka, formerly United States collector of internal revenue for the first district of the state of Illinois.	In error to the district court of the United States for the northern district of Illinois.

[March 28, 1921]

Mr. Justice CLARKE delivered the opinion of the court.

A writ of error brings this case here for review of a judgment of the district court of the United States for the northern district of Illinois, sustaining a demurrer to a declaration in assumpsit to recover an assessment of taxes for the year 1917, made under warrant of the income-tax act of congress, approved September 8, 1916 (39 Stat. ch. 463, p. 756) as amended by the act, approved October 3, 1917 (40 Stat. ch. 63, p. 300). Payment was made under protest and the claim to recover is based upon the contention that the fund taxed was not "income" within the scope of the sixteenth amendment to the constitution of the United States and that the effect given by the lower court to the act of congress cited renders it

unconstitutional and void. This is sufficient to sustain the writ of error. *Towne v. Eisner,* 245 U. S. 418.

Arthur Ryerson died in 1912, and the plaintiff in error is trustee under his will, of property the net income of which was directed to be paid to his widow during her life and after her death to be used for the benefit of his children, or their representatives, until each child should arrive at twenty-five years of age, when each should receive his or her share of the trust fund.

The trustee was given the fullest possible dominion over the trust estate. It was made the final judge as to what "net income" of the estate should be, and its determination in this respect was made binding upon all parties interested therein, "except that it is my will that stock dividends and accretions of selling values shall be considered principal and not income."

The widow and four children were living in 1917.

Among the assets which came to the custody of the trustee were 9,522 shares of the capital stock of Joseph T. Ryerson & Son, a corporation. It is averred that the cash value of these shares, on March 1, 1913, was $561,798, and that there were sold for $1,280,996.64, on February 2, 1917. The commissioner of internal revenue treated the difference between the value of the stock on March 1, 1913, and the amount for which it was sold on February 2, 1917, as income for the year 1917, and upon that amount assessed the tax which was paid. No question is made as to the amount of the tax if the collection of it was lawful.

The ground of the protest, and the argument for the plaintiff in error here, is that the sum charged as "income" represented appreciation in the value of the capital assets of the estate which was not "income" within the meaning of the sixteenth amendment and therefore could not, constitutionally, be taxed, without apportionment, as required by section 2, clause 3, and by section 9, clause 4, of article I of the constitution of the United States.

It is first argued that the increase in value of the stock could not be lawfully taxed under the act of congress because it was not income to the widow, for she did not receive it in 1917, and never can receive it, that it was not income in that year to the children for they did not then, and may never, receive it, and that it was not income to the trustee, not only because the will creating the trust required that "stock dividends and accretions of selling value shall be considered principal and not income," but also because in the "common understanding" the term "income" does not comprehend such a gain or profit as we have here, which it is contended is really an accretion to capital and therefore not constitutionally taxable under *Eisner v. Macomber,* 252 U. S. 189.

The provision of the will may be disregarded. It was not within the power of the testator to render the fund non-taxable.

Assuming for the present that there was constitutional power to tax such a gain or profit as is here involved, are the terms of the statute comprehensive enough to include it?

Section 2 (a) of the act of September 8, 1916 (39 Stat. 757), (40 Stat. 300, 307, sec. 212), applicable to the case, defines the income of "a taxable person" as including "gains, profits and income derived from . . . sales, or dealings in property, whether real or personal, growing out of the ownership or use of or interest in real or personal property . . . or gains or profits and income derived from any source whatever."

Plainly the gain we are considering was derived from the sale of personal property, and, very certainly the comprehensive last clause "gains or profits and income derived from any source whatever," must also include it, if the trustee was a "taxable person" within the meaning of the act when the assessment was made.

That the trustee was such a "taxable person" is clear from Section 1204 (1) (c) of the Act of October 3, 1917 (40 Stat. 331), which requires that "trustees, executors . . . and all persons, corporations or associations,

acting in any fiduciary capacity, shall make and render a return of the income of the person, trust, or estate for whom or which they act, and be subject to all the provisions of this title which apply to individuals."

And section 2 (b) of the act of September 8, 1916, *supra,* specifically declares that the

"income received by estates of deceased persons during the period of administration or settlement of the estate, . . . or any kind of property held in trust, including such income accumulated in trust for the benefit of unborn or unascertained persons, or persons with contingent interests, and income held for future distribution under the terms of the will or trust shall be likewise taxed, the tax in each instance, except when the income is returned for the purpose of the tax by the beneficiary, to be assessed to the executor, administrator, or trustee, as the case may be."

Further, section 2 (c) clearly shows that it was the purpose of congress to tax gains, derived from such a sale as we have here, in the manner in which this fund was assessed, by providing that

"for the purpose of ascertaining the gain derived from the sale or other disposition of property, real, personal, or mixed, acquired before March 1, 1913, the fair market price or value of such property as of March 1, 1913, shall be the basis for determining the amount of such gain derived."

Thus, it is the plainly expressed purpose of the act of congress to treat such a trustee as we have here as a "taxable person" and for the purposes of the act to deal with the income received for others precisely as if the beneficiaries had received it in person.

There remains the question, strenuously argued, whether this gain in four years of over $700,000 on an investment of about $500,000 is "income" within the meaning of the sixteenth amendment to the constitution of the United States.

The question is one of definition and the answer to it may be found in recent decisions of this Court.

The corporation excise-tax act of August 5, 1909 (36 Stat. 11, 112), was not an income-tax law, but a definition of the word "income" was so necessary in its administration that in an early case it was formulated as "A gain derived from capital, from labor, or from both combined." (*Stratton's Independence v. Howbert*, 231 U. S. 399, 415.)

This definition, frequently approved by this court, received an addition, in its latest income-tax decision, which is especially significant in its application to such a case as we have here, so that it now reads: "Income may be defined as a gain derived from capital, from labor, or from both combined, *provided it be understood to include profit gained through sale or conversion of capital assets.*" *Eisner v. Macomber*, 252 U. S. 189, 207.

The use made of this definition of "income" in the decision of cases arising under the corporation excise-tax act of August 5, 1909, and under the income-tax acts is, we think, decisive of the case before us. Thus, in two cases arising under the corporation excise-tax act:

In *Hays v. Gauley Mountain Coal Company,* 247 U. S. 189, a coal company, without corporate authority to trade in stocks, purchased shares in another coal mining company in 1902, which it sold in 1911, realizing a profit of $210,000. Over the same objection made in this case, that the fund was merely converted capital, this court held that so much of the profit upon the sale of the stock as accrued subsequent to the effective date of the act was properly treated as income received during 1911, in assessing the tax for that year.

In *United States v. Cleveland, Cincinnati, Chicago & St. Louis Railway Company,* 247 U. S. 195, a railroad company purchased shares of stock in another railroad company in 1900 which it sold in 1909, realizing a profit of $814,000. Here, again, over the same objection, this court held that the part of the profit which accrued subsequent to the effective date of the act was properly treated as income received during the year 1909 for the purposes of the act.

Thus, from the price realized from the sale of stock by two investors, as distinguished from dealers, and from a single transaction as distinguished from a course of business, the value of the stock on the effective date of the tax act was deducted and the resulting gain was treated by this court as "income" by which the tax was measured.

It is obvious that these decisions in principle rule the case at bar if the word "income" has the same meaning in the income-tax act of 1913 that it had in the corporation excise-tax act of 1909, and that it has the same scope of meaning was in effect decided in *Southern Pacific Company v. Lowe,* 247 U. S. 330, 335, where it was assumed for the purposes of decision that there was no difference in its meaning as used in the act of 1909 and in the income-tax act of 1913. There can be no doubt that the word must be given the same meaning and content in the income-tax acts of 1916 and 1917 that it had in the act of 1913. When to this we add that in *Eisner v. Macomber, supra,* a case arising under the same income-tax act of 1916 which is here involved, the definition of "income" which was applied was adopted from *Stratton's Independence v. Howbert, supra,* arising under the corporation excise-tax act of 1909, with the addition that it should include "profit gained through sale or conversion of capital assets," there would seem to be no room to doubt that the word must be given the same meaning in all of the income-tax acts of congress that was given to it in the corporation excise-tax act and that what that meaning is has now become definitely settled by decisions of this court.

In determining the definition of the word "income" thus arrived at, this court has consistently refused to enter into the refinements of lexicographers or economists and has approved, in the definitions quoted, what it believed to be the commonly understood meaning of the term which must have been in the minds of the people when they adopted the sixteenth amendment to the constitution. *Doyle v. Mitchell Brothers Company,* 247 U. S. 179, 185; *Eisner v. Macomber,* 252 U. S. 189, 206, 207. Notwithstanding the full argument heard in this case and in the series of cases now under consideration we continue entirely satisfied with that definition, and, since the fund here taxed was the amount realized from the sale of the stock in 1917, less the capital investment as determined by the trustee as of March 1, 1913, it is palpable that it was a "gain or profit" "produced by" or "derived from" that investment, and that it "proceeded" and was "severed" or rendered severable, from it, by the sale for cash, and thereby became that "realized gain" which has been repeatedly declared to be taxable income within the meaning of the constitutional amendment and the acts of congress. *Doyle v. Mitchell Brothers Company* and *Eisner v. Macomber, supra.*

It is elaborately argued in this case, in No. 609, *Eldorado Coal & Mining Company v. Harry W. Mager, Collector, etc.,* submitted with it, and in other cases since argued, that the word "income" as used in the sixteenth amendment and in the income-tax act we are considering does not include the gain from capital realized by a single isolated sale of property but that only the profits realized from sales by one engaged in buying and selling as a business—a merchant, a real estate agent, or broker —constitute income which may be taxed.

It is sufficient to say of this contention, that no such distinction was recognized in the civil war income-tax act of 1867 (14 Stat. 471, 478), or in the act of 1894 (28 Stat. 509, 553), declared unconstitutional or an unrelated ground; that it was not recognized in determining income under the excise-tax act of 1909, as the cases cited, *supra,* show; that it is not to be found, in terms, in any of the income-tax provisions of the internal revenue acts of 1913, 1916, 1917 or 1919; that the definition of the word "income" as used in the sixteenth amendment, which has been developed by this court, does not recognize any such distinction; that in departmental practice, for now seven years, such a rule has not been applied; and that there is no essential difference in the nature of the transaction or in the

relation of the profit to the capital involved, whether the sale or conversion be a single, isolated transaction or one of many. The interesting and ingenious argument, which is earnestly pressed upon us, that this distinction is so fundamental and obvious that it must be assumed to be a part of the "general understanding" of the meaning of the word "income" fails to convince us that a construction should be adopted which would, in a large measure, defeat the purpose of the amendment.

The opinions of the courts in dealing with the rights of life tenants and remaindermen in gains derived from invested capital, especially in dividends paid by corporations, are of little value in determining such a question as we have here, influenced as such decisions are by the terms of the instruments creating the trusts involved and by the various rules adopted in the various jurisdictions for attaining results thought to be equitable. Here the trustee, acting within its powers, sold the stock, as it might have sold a building, and realized a profit of $700,000, which at once became assets in its possession free for any disposition within the scope of the trust but for the purposes of taxation to be treated as if the trustee were the sole owner.

Gray v. Darlington, 15 Wall. 63, much relied upon in argument, was sufficiently distinguished from cases such as we have here in *Hays v. Gauley Mountain Coal Company*, 247 U. S. 189, 191. The differences in the statutes involved render inapplicable the expressions in the opinion in that case (not necessary to the decision of it) as to distinctions between income and increase of capital.

In *Lynch v. Turrish*, 247 U. S. 221, also much relied upon, it is expressly stated that, "according to the fact admitted, there was no increase after that date (March 1, 1913) and therefore no increase subject to the law." For this reason the questions here discussed and decided were not there presented.

The British income-tax decisions are interpretations of statutes so wholly different in their wording from the acts of congress which we are considering that they are quite without value in arriving at the construction of the laws here involved.

Another assessment on a small gain realized from a sale of bonds, also made by the trustee in 1917, does not present any questions other than those which we have discussed and therefore it does not call for separate consideration.

The judgment of the district court is *affirmed*.

Mr. Justice HOLMES and Mr. Justice BRANDEIS, because of prior decisions of the court, concur only in the judgment.

SUPREME COURT OF THE UNITED STATES

No. 609.—OCTOBER TERM, 1920

Eldorado Coal & Mining Company, plaintiff in error, *vs.* Harry W. Mager, collector of internal revenue for the first district of Illinois.	In error to the district court of the United States for the northern district of Illinois.

[March 28, 1921]

Mr. Justice CLARKE delivered the opinion of the court.

This case comes into this court on a writ of error to review a judgment of the district court of the United States for the northern district of Illinois, sustaining a demurrer to a declaration in assumpsit to recover an assessment of income- and excess-profits taxes for the year 1917, under warrant of the income-tax act of congress, approved September 8, 1916 (39 Stat., ch. 463, p. 756) as amended by the act approved October 3, 1917 (40 Stat., ch. 63, p. 300). Payment was made under protest and the claim to recover is based upon the same contention dealt with in No. 608, this day decided, that the fund taxed was not "income" within the scope

of the sixteenth amendment to the constitution of the United States, and that the effect given by the lower court to the act renders it unconstitutional and void.

The Eldorado Coal & Mining Company is an Indiana corporation, which operated a bituminous coal mine and mining plant, which it sold in May, 1917, for cash. The company retained its accounts receivable and prior to September 30, 1917, it distributed among its stockholders, proportionately to their ownership of stocks, the cash received from the sale and the accounts receivable in kind. The corporation, however, was not dissolved nor its charter surrendered, because there were unsettled liabilities against it for federal income taxes and excess-profits taxes. Otherwise its affairs were wound up.

It is averred in the declaration that, taking the fair market value as of March 1, 1913, of the capital assets of the company invested and employed in its business, and adding thereto the cost of additions and betterments, and subtracting depreciation and depletion to the date of sale, it appears that there was an appreciation in value of the property after March 1, 1913, of $5,986.02, and it was on this profit realized by the sale that the assessment of $3,073.16 was made which the company paid and in this suit seeks to recover.

It is obvious from this statement of the case that it presents in so nearly the same form precisely the same questions as were considered in No. 608, *The Merchants' Loan & Trust Company, etc. v. Julius F. Smietanka, Collector, etc.*, this day decided, that further discussion of them is unnecessary, and, on the authority of that case, the judgment of the district court is *affirmed.*

Mr. Justice HOLMES and Mr. Justice BRANDEIS, because of prior decisions of the court, concur only in the judgment.

SUPREME COURT OF THE UNITED STATES

No. 663.—OCTOBER TERM, 1920

David M. Goodrich, plaintiff in error, *vs.* William H. Edwards, United States collector of internal revenue for the second district of the state of New York.	In error to the District court of the United States for the southern district of New York.

[March 28, 1921]

Mr. Justice CLARKE delivered the opinion of the court.

The plaintiff in error sued the defendant, a collector of internal revenue, to recover income taxes assessed in 1920 for the year 1916 and paid under protest to avoid penalties. A demurrer to the complaint was sustained and the constitutional validity of a law of the United States is so involved, that the case is properly here by writ of error. *Towne v. Eisner,* 245 U. S. 418.

Two transactions are involved.

(1) In 1912 the plaintiff in error purchased 1,000 shares of the capital stock of a mining company for which he paid $500. It is averred that the stock was worth $695 on March 1, 1913, and that it was sold in March, 1916, for $13,931.22. The tax which the plaintiff in error seeks to recover was assessed on the difference between the value of the stock on March 1, 1913, and the amount for which it was sold.

(2) The plaintiff in error being the owner of shares of the capital stock of another corporation, in 1912 exchanged them for stock, in a reorganized company, of the then value of $291,600. It is averred and admitted that on March 1, 1913, the value of this stock was $148,635.50, and that it was sold in 1916 for $269,346.25. Although it is thus apparent that the stock involved was of less value on March 1, 1913, than when it was acquired, and that it was ultimately sold at a loss to the owner nevertheless the collector assessed the tax on the difference between the value on March 1, 1913, and the amount for which it was sold.

The plaintiff in error seeks to recover the whole of these two assessments.

The same contention is made with respect to each of these payments as was made in No. 608, *The Merchants' Loan & Trust Company, as Trustee v. Julius F. Smietanka, Collector of Internal Revenue,* this day decided, viz., that the amounts realized from the sales of the stocks were in their inherent nature capital as distinguished from income, being an increment in value of the securities while owned and held as an investment and therefore not taxable under the revenue act of 1916 (39 Stat. 756) as amended in 1917 (40 Stat. 300) or under any constitutional law.

With respect to the first payment. It is plain that this assessment was on the profit accruing after March 1, 1913, the effective date of the act, realized to the owner by the sale after deducting his capital investment. The question involved is ruled by No. 608, *supra,* and the amount was properly taxed.

As to the second payment. The government confesses error in the judgment with respect to this assessment. The stock was sold in the year for which the tax was assessed for $22,253.75 less than its value when it was acquired, but for $120,710.75 more than its value on March 1, 1913, and the tax was assessed on the latter amount.

The act under which the assessment was made provides that the net income of a taxable person shall include *gains,* profits and income derived from . . . sales or dealings in property, whether real or personal . . . or *gains* or profits and income derived from any source whatever. (39 Stat. 757; 40 Stat. 300, 307.)

Section 2 (c) of this same act provides that "for the purpose of ascertaining the *gain* derived from a sale or other disposition of property, real, personal or mixed, acquired before March 1, 1913, the fair market price or value of such property as of March 1, 1913, shall be the basis for determining the amount of such *gain* derived."

And the definition of "income" approved by this court is: "A *gain* derived from capital, from labor, or from both combined, provided it be understood to include profits gained through sale or conversion of capital assets." *Eisner v. Macomber,* 252 U. S. 189, 207.

It is thus very plain that the statute imposes the income tax on the proceeds of the sale of personal property to the extent only that *gains* are derived therefrom by the vendor, and we therefore agree with the solicitor general that since no gain was realized on this investment by the plaintiff in error no tax should have been assessed against him.

Section 2 (c) is applicable only where a gain over the original capital investment has been realized after March 1, 1913, from a sale or other disposition of property.

It results that the judgment of the district court as to the first assessment, as we have described it, is affirmed, that as to the second assessment it is reversed, and the case is remanded to that court for further proceedings in conformity with this opinion. *Reversed in part. Affirmed in part.*

Mr. Justice HOLMES and Mr. Justice BRANDEIS, because of prior decisions of the court, concur only in the judgment.

SUPREME COURT OF THE UNITED STATES

No. 742.—OCTOBER TERM, 1920.

James J. Walsh, collector of internal revenue, plaintiff in error, *vs.* Frederick F. Brewster.	In error to the district court of the United States for the district of Connecticut.

[March 28, 1921]

Mr. Justice CLARKE delivered the opinion of the court.

In this case the defendant in error sued the plaintiff in error, a collector of internal revenue, to recover income taxes for the year 1916, assessed

in 1918, and which were paid under protest to avoid penalties. The defendant answered, the case was tried upon an agreed statement of facts, and judgment was rendered in favor of the taxpayer, the defendant in error. The case is properly here by writ of error. *Towne v. Eisner,* 245 U. S. 418.

The defendant in error was not a trader or dealer in stocks or bonds, but occasionally purchased and sold one or the other for the purpose of changing his investments.

Three transactions are involved.

The first relates to bonds of the International Navigation Company, purchased in 1909, for $191,000 and sold in 1916 for the same amount. The market value of these bonds on March 1, 1913, was $151,845, and the tax in dispute was assessed on the difference between this amount and the amount for which they were sold in 1916, viz., $39,155.

The trial court held that this apparent gain was capital assets and not taxable income under the sixteenth amendment to the constitution of the United States, and rendered judgment in favor of the defendant in error for the amount of the tax which he had paid.

The ground upon which this part of the judgment was justified below is held to be erroneous in No. 608, *Merchants' Loan & Trust Company, as Trustee v. Julius F. Smietanka, Collector of Internal Revenue,* this day decided, but, since the owner of the stock did not realize any gain on his original investment by the sale in 1916, the judgment was right in this respect, and under authority of the opinion and judgment in No. 663, *Goodrich v. Edwards, Collector,* also rendered this day, this part of the judgment is affirmed.

The second transaction involved the purchase in 1902 and 1903 of bonds of the International Mercantile Marine Company for $231,300, which were sold in 1916 for $276,150. This purchase was made through an underwriting agreement such that the purchaser did not receive any interest upon the amount paid prior to the allotment to him of the bonds in 1906, and he claimed that interest upon the investment for the time which so elapsed should be added as a part of the cost to him of the bonds. But this claim was properly rejected by the trial court under authority of *Hays v. Gauley Mountain Coal Company,* 247 U. S. 189.

It is stipulated that the market value of these bonds on March 1, 1913, was $164,480, and the collector assessed the tax upon the difference between the selling price and this amount, but since the gain to the taxpayer was only the difference between his investment of $231,300 and the amount realized by the sale, $276,150, under authority of No. 663, *Goodrich v. Edwards, Collector,* this day decided, he was taxable only on $44,850.

The district court, however, held that any gain realized by the sale was a mere conversion of capital assets and was not income which could lawfully be taxed. In this respect the court fell into error. The tax was properly assessed, but only upon the difference between the purchase and selling price of the bonds as stated.

The third transaction related to stock in the Standard Oil Company of California, received through the same stock dividend involved in *Eisner v. Macomber,* 252 U. S. 189. The district court, upon authority of that case, properly held that the assessment made and collected upon this dividend should be refunded to the defendant in error.

It results that as to the profit realized upon the second transaction, as indicated in this opinion, the judgment of the District Court is reversed, but as to the other transactions it is affirmed for the reasons and upon the grounds herein stated. *Judgment reversed in part, affirmed in part, and case remanded.*

Mr. Justice Holmes and Mr. Justice Brandeis, because of prior decisions of the court, concur only in the judgment.

TREASURY RULINGS

(T. D. 3153—April 9, 1921)

Income tax—Gross income—Invested capital.

Articles 549 and 870, regulations No. 45 (1920 edition), amended.

Articles 549 and 870, regulations No. 45 (1920 edition) are hereby amended to read as follows:

ART. 549. *Exclusions from gross income.*—A life insurance shall not include in gross income such portion of any actual premium received from any individual policyholder as is paid back, or credited to, or treated as an abatement of premium of such policyholder within the taxable year.

"Paid back" means paid in cash.

"Credited to" means applied by way of credit so as to reduce the premium received on the policy for the taxable year. It includes dividends applied (*a*) directly to the payment of the premium for the taxable year; (*b*) to purchase additional paid-up insurance or annuities; or (*c*) to shorten the endowment or premium paying period; or (*d*) left with the company to accumulate at interest. It does not include the amount of divisible surplus annually ascertained and apportioned to deferred dividend policies.

"Treated as an abatement of premium" means of the premium for the taxable year.

Where the dividend paid back or credited to a policyholder is in excess of the premium received from such policyholder within the taxable year there may be excluded from gross income only the amount of the premium received, and where no premium is received from the policyholder within the taxable year the company is not entitled to exclude from its premiums received from other policyholders any amount on account of such dividend payment.

ART. 870. *Insurance companies.*—The reserve funds of life insurance companies, the net additions to which are deductible from gross income under the provisions of section 234 of the statute, can not be included in computing invested capital. The like reserve funds of insurance companies, other than life insurance companies, may be included in computing invested capital. See sections 325 and 326 (*a*) (3) and (*b*) and articles 569 and 814.

(T. D. 3154—April 11, 1921)

Action on claims for credit.

Regulations No. 45 (1920 ed.) amended.

Article 1035 of regulations No. 45 (1920 edition) is hereby amended to read as follows:

ART. 1035. *Action on claims for credit.*—Upon receipt by the collector of a claim for credit on form 47 A, he will take no action thereon until the following requirements have been met:

(*a*) The collector must ascertain from the commissioner whether a claim for refund for the year or years upon which the claim for credit is based, and upon substantially the same ground, has been filed. If no such claim for refund has been filed, the collector may, on notice thereof from the commissioner, accept for filing the taxpayer's claim for credit.

(*b*) When it is known to the collector that a refund claim of the nature referred to above is on file with the commissioner, and has not been adjusted, he will not accept the taxpayer's claim for credit for the same year or years until the taxpayer has requested the commissioner to reject such claim and has been advised by the commissioner that such claim has been rejected. Claims for refund may not be converted into claims for credit, except in the manner above mentioned.

Upon acceptance for filing of a claim for credit on form 47 A, the collector shall certify thereon the required information concerning all outstanding assessments and payments covered thereby and shall note on

his records that a claim for credit has been filed. He shall thereupon transmit the claim to the commissioner. Due notice will be given the collector and the taxpayer of the action taken on the claim. A schedule of credit claims on form 7220 A will be transmitted to the collector once a month and formal credit shall be taken by the collector at that time. If a claim is allowed against additional taxes due for other years, but such other taxes have not yet been assessed, only the amount of the excess of such taxes over the overpayment shall be assessed, or the excess of the overpayment over such taxes due shall be refunded as the case may be. The effective date of the filing of a claim for credit shall be the actual date of presentation to the collector. The filing of a claim for credit against the tax due under another return shall be subject to the same rules with respect to the addition of interest and penalties as if the taxpayer had filed a claim for abatement of the tax against which credit is desired. See articles 1003 and 1006.

Under no circumstances will a taxpayer be permitted to take credit for an alleged refund due for a prior year on any return filed for a subsequent year without filing a formal claim for credit on form 47 A, under the requirements as provided herein. An attempt to take a credit contrary to the instructions herein set forth shall not be held to be the filing of a claim under section 252 of the revenue act of 1918.

(T. D. 3155—April 11, 1921)

Income tax—Nonresident aliens.

Articles 312, 313, 314 and 315, regulations No. 45, amended.

Articles 312, 313, 314 and 315 of regulations No. 45 are hereby amended, to conform with an opinion of the attorney general of March 1, 1921, to read as follows:

Art. 312. *Who is a nonresident alien individual?*—A "nonresident alien individual" means an individual (*a*) whose residence is not within the United States and (*b*) who is not a citizen of the United States. An alien actually present in the United States who is not a mere transient or sojourner is a resident of the United States for purposes of the income tax. Whether he is a transient or not is determined by his intentions with regard to his stay and the length and nature of his stay. A mere floating intention, indefinite as to time, to return to another country is not sufficient to constitute him a transient. If he lives in the United States and has no definite intention as to his stay, he is a resident. One who comes to the United States for a definite purpose which in its nature may be promptly accomplished is a transient; but if his purpose is of such a nature that an extended stay may be necessary for its accomplishment, and to that end the alien makes his home temporarily in the United States, he becomes a resident, though it may be his intention at all times to return to his domicile abroad when the purpose for which he came has been consummated or abandoned.

Art. 313. *Proof of residence of alien.*—The following rules of evidence shall govern in determining whether or not an alien within the United States has acquired residence therein within the meaning of the revenue act. An alien, by reason of his alienage, is presumed to be a nonresident alien. Such presumption may be overthrown (1) in the case of an alien who presents himself for determination of tax liability prior to departure for his native country, by (*a*) proof that the alien, at least six months prior to the date he so presents himself, has filed a declaration of his intention to become a citizen of the United States under the naturalization laws, (*b*) proof that the alien, at least six months prior to the date he so presents himself, has filed form 1078 (revised) or its equivalent, or (*c*) proof of acts and statements of the alien showing a definite intention to acquire residence in the United States or showing that his stay in the United States had been of such an extended nature as to constitute him a

resident; (2) in all other cases by (*a*) proof that the alien has filed a declaration of his intention to become a citizen of the United States under the naturalization laws, (*b*) proof that the alien has filed form 1078 (revised) or its equivalent, or (*c*) proof of acts and statements of an alien showing a definite intention to acquire residence in the United States or showing that his stay in the United States has been of such an extended nature as to constitute him a resident. In any case in which an alien seeks to overcome the presumption of nonresidence under (1) (*c*) or (2) (*c*) above, if the officer who examines the alien is in doubt as to the facts, such officer may, to assist him in determining the facts, require an affidavit or affidavits setting forth the facts relied upon, executed by some creditable person or persons, other than the alien and members of his family, who have known the alien at least six months prior to the date of execution of the affidavit or affidavits.

ART. 314. *Loss of residence by alien.*—An alien who has acquired residence in the United States retains his status as a resident until he abandons the same and actually departs from the United States. An intention to change his residence does not change his status as a resident alien to that of a nonresident alien. Thus an alien who has acquired a residence in the United States is taxable as a resident for the remainder of his stay in the United States. The status of an alien on the last day of his taxable year or period determines his liability to tax for such year or period as a resident or nonresident. See articles 305 and 306.

ART. 315. *Duty of employer to determine status of alien employee.*—If wages are paid to aliens without withholding the tax, except as permitted in article 316, the employer should be prepared to prove the status of the alien as provided in the foregoing articles. An employer may rely upon the evidence of residence afforded by the fact that an alien has filed form 1078 (revised) or an equivalent certificate of the alien establishing residence. An employer who seeks to account for failure to withhold in the past, if he had not at the time secured form 1078 (revised) or its equivalent, is permitted to prove the former status of the alien by any material evidence.

(T. D. 3156—April 11, 1921)

Capital-stock tax.

Amendment of T. D. 2800 of March 12, 1919, concerning liability to capital-stock tax of railroad corporations whose properties were held and operated by the federal government under the army appropriation act approved August 29, 1916.

T. D. 2800 is hereby amended to read as follows:

Under section 407 of the act of September 8, 1916, every domestic corporation was required to pay annually a special excise tax with respect to the carrying on or doing business equivalent to 50 cents for each $1,000 of the fair value of its capital stock. The act approved February 24, 1919, increased the tax to $1 for each $1,000 of the fair average value of the capital stock and reduced the exemption from $99,000 to $5,000. Questions have been raised as to the liability to the capital-stock tax of corporations owning railroads controlled and operated by the federal government.

Liability to capital-stock tax is made to depend upon whether a corporation is "carrying on or doing business" within the meaning of the taxing act. A corporation which has been organized or chartered to operate a railroad property but which has ceased to operate it by reason of the fact that the property is being operated by the federal government is not liable to capital-stock tax unless it is carrying on or doing business in connection with other property than its railroad property. The renting of property which was acquired by the corporation as an incident to its railroad business but which was not needed by the federal government is not such carrying on or doing of business as would involve the corporation in liability to capital-stock tax.

(T. D. 3159—April 29, 1921)

Income tax—Revenue act of 1918—Decision of court.

1. YEAR TO WHICH INCOME APPORTIONABLE—LUMP SUM AWARDED TO RECEIVER IN ADDITION TO SALARY.

Where a receiver of a railroad was, in 1918, awarded a large sum in addition to his regular salary, as additional compensation, which he was required to return on a cash receipts and disbursements basis as income for the year 1918, he was properly refused permission to report the income on an accrual basis, apportioning it over the five years of the receivership, for the reasons (1) that the taxpayer had no right to make his return on an accrual basis under section 212 of the revenue act of 1918, and (2) the award was compensation for personal services which was income of the calendar year of its determination and payment.

2. EFFECT OF NUNC PRO TUNC ORDER APPORTIONING OVER PERIOD OF YEARS ADDITIONAL COMPENSATION PREVIOUSLY AWARDED RECEIVER.

Where, upon demand by collector that he return award as income of 1918, taxpayer applied to court for a nunc pro tunc order showing that the additional compensation was earned and accrued in equal monthly installments throughout the receivership, which order was entered, such order was ineffective to alter the conclusion that the award was income for the year in which determined and paid.

The appended decision of the United States circuit court of appeals for the seventh circuit, in the case of *Jackson v. Smietanka, Collector*, is published for the information of internal revenue officers and others concerned:

UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

No. 2794. OCTOBER TERM, 1920, JANUARY SESSION, 1921.

William J. Jackson, plaintiff in error, v. Julius F. Smietanka, collector of internal revenue, defendant in error.

[Error to the district court of the United States for the northern district of Illinois, eastern division.]

Before BAKER, ALSCHULER and EVANS, circuit judges.

BAKER, circuit judge, delivered the opinion of the court:

Jackson, plaintiff, filed a declaration to recover income taxes paid by him under protest. Defendant's demurrer was sustained; plaintiff declined to plead over; and this writ of error challenges the consequent judgment.

From May, 1913, to April, 1918, plaintiff served as a railroad receiver under appointment of the district court at Chicago. Plaintiff accepted the employment under an order providing that he "be paid on account of his services at the rate of $2,000 per month," and that on termination of his trust he "shall be at liberty to apply for such further compensation as to the court may then appear reasonable and just." For the years 1913 to 1917, inclusive, plaintiff made returns on the basis of "income received;" and, respecting this receivership, he had neither a business system nor books nor unpaid allowances for service from which he could have made returns of "income accrued." In 1918 plaintiff was allowed and paid "as final payment for all services rendered by him during the receivership herein the additional sum of $100,000." On March 14, 1919, plaintiff filed his return for 1918, showing the receipt of said $100,000, and also filed amended returns for 1913 to 1917, inclusive, in which he claimed that pro rata parts of said $100,000 were "accrued income" of those years. On April 16, 1919, the collector rejected the amended returns and demanded normal taxes and surtaxes on the $100,000 so received in 1918. Plaintiff then prepared and on April 22, 1919, presented to the district court a petition for a nunc pro tunc order showing that the additional compensation was earned and had accrued in equal monthly installments throughout the receivership, and the order as tendered was entered. Thereupon plaintiff, on May 28,

1919, paid $26,826 under protest, and subsequently brought this action to recover the difference, $19,973.

Unless some effect is to be given to the nunc pro tunc order, the collector was right. Section 213 of the revenue act of 1918 requires a return of "income derived from salaries or compensation for personal service" and provides that the amount thereof "shall be included in the gross income for the taxable year in which received by the taxpayer unless under methods of account permitted under subdivision (*b*) of section 212 any such amounts are to be properly accounted for as of a different period." That subdivision permits a return "upon the basis of the taxpayer's annual account period (fiscal year or calendar year, as the case may be) in accordance with the method of accounting regularly employed in keeping the books of such taxpayer; but if no such method of accounting has been so employed, or if the method employed does not clearly reflect the income, the computation shall be made upon such basis and in such manner as in the opinion of the commissioner does clearly reflect the income." Not only do the facts of this case demonstrate that there is no permission in that subdivision to save plaintiff from the direct mandate of section 213, but article 32 of regulations No. 45 (authorized by section 1309 of the act) explicitly requires that "where no determination of compensation for personal services is had until the completion of the services, the amount received is income for the calendar year of its determination." Plaintiff from time to time during the receivership had applied to the court for additional compensation, and the court had always refused. Manifestly such refusals were in accordance with the original order of appointment, which plainly denied any intermediate right to additional compensation and left the question of what additional compensation, if any, would be fair to be determined when the trust ended and to be dependent upon the outcome of the administration. And whether the regulation means that the compensation is income of the year in which the determination of the amount is made, or is income of the year in which payment is made, is immaterial in the present case, for both determination of amount and payment thereof occurred in 1918.

A year after plaintiff had finally stepped out of the district court and a month after his liability to make a true return of his income for 1918 had become fixed, plaintiff reappeared in court and obtained the aforesaid nunc pro tunc order. Respecting the general question of a court's authority to make nunc pro tunc orders or judgments, plaintiff cites certain authorities, which we supplement by calling attention to others. In regard to the present order it suffices to say: There was no misprision of a clerical officer; no new facts; no newly discovered evidence concerning former issues of fact; no failure in the court to enter the original order exactly as the court intended to enter it; even if the petition for the nunc pro tunc order had tendered an issue which interested the original parties (the railroad company and its creditors), no steps were taken by the aforetime receiver to have them join issue; the petition was heard ex parte; and as to the government all the matters in the district court were res inter alios.

The judgment is affirmed.

(T. D. 3160—April 28, 1921)

Capital-stock tax—Act of September 8, 1916, Title IV—Decision of court.

1. Validity of Tax.

The capital-stock tax is an excise tax imposed upon a corporation with respect to the carrying on or doing business by the corporation, which is a proper subject for taxation by the government, and within its constitutional powers of taxation.

2. Payment in Advance.

The capital-stock tax imposed by the act of September 8, 1916, is not illegal because assessed and collected in advance under regulations of the treasury department; the act, by sections 407 and 409, contemplating that

a corporation must pay a tax on its capital stock for the preceding year in order to do business for the coming year.

3. Action to Recover Tax Paid—Maintenance.

An action to recover a capital-stock tax paid in advance, on the ground that advance payment was unauthorized, can not be maintained where the tax became due and payable under the taxpayer's theory before suit was brought.

The appended decision of the court of claims, under date of February 14, 1921, in the case of the *Washington Water Power Co., a corporation, v. United States,* is published for the information of internal-revenue officers and others concerned:

Court of Claims of the United States. No. 34092.

The Washington Water Power Co., a corporation, v. United States.

[Decided Feb. 14, 1921]

This case having been heard by the court of claims, the court, upon the evidence makes the following

Findings of Fact.

I. The plaintiff, The Washington Water Power Co., is and was during the period hereinafter stated, a corporation organized for profit and engaged in business in the state of Washington.

II. On or about January 31, 1917, the plaintiff duly filed a return on form 707 prescribed by the treasury department for the return of the tax on corporations under section 407, title IV, act of September 8, 1916 (30 Stat., 756). In his return plaintiff stated the value and amount of its capital stock, surplus, and undivided profits for the year ending June 30, 1916, and computed the amount of tax due thereon for the six months ending June 30, 1917, at the rate of 25 cents for each $1,000 of such value to be the sum of $2,977.75. This return was accompanied by the following written statement:

The Washington Water Power Co. hereby formally protests against the filing of this return, and only does so under compulsion exerted by the collector of internal revenue. In support of its protest the company states that no return is due from it to the United States at this time under the act commonly known as the capital-stock tax law, being embraced in title IV of the act approved September 8, 1916, and that the demand of the collector of internal revenue for the filing of such return is illegal and unauthorized.

III. On or about March 9, 1917, the plaintiff paid to the United States collector of internal revenue for the district of Washington, in said state, the sum of $2,977.75, as a tax under said statute for the six months' period ending June 30, 1917. This tax was paid voluntarily and without protest.

IV. On or about July 25, 1917, plaintiff filed another return similar in form to that described in finding II, computing thereon the amount of tax due for the year ending June 30, 1918, to be the sum of $5,458.50. This return was also accompanied by a written statement identical with that set forth in finding II.

V. On or about September 24, 1917, the plaintiff paid the United States collector for said district in the sum of $5,458.50 as a tax under said statute for the year ending June 30, 1918, which was computed at the rate of 50 cents for each $1,000 of plaintiff's capital stock, surplus, and undivided profits less authorized deduction.

The payment of this tax was accompanied by the following written protest:

The Washington Water Power Company hereby protests against the payment of taxes in the amount of $5,458.50, or in any other amount, which are alleged to be due by the collector of internal revenue under the terms of the act commonly known as the capital-stock tax law, being embraced in

title IV of the act of congress approved September 8, 1916. That this payment is made by this company involuntarily, under duress and compulsion, and in order to avoid penalties and the institution of distraint proceedings, which it is advised by the collector of internal revenue will be exacted and instituted unless payment is now made. Further, in support of its protest the Washington Water Power Company states that no tax is now lawfully due by said company to the United States under the terms of the capital-stock tax law, as aforesaid. Said company hereby notifies the collector of internal revenue of its intention to recover said taxes illegally collected by appropriate proceedings in the courts.

VI. On or about October 31, 1917, the plaintiff filed in the treasury department an application demanding a refund to it of the sum of $2,977.75, and also the sum of $5,458.50, being the amount of the taxes which it had paid as set forth in findings III and V. The said claim for refund was rejected by the commissioner of internal revenue on or about June 14, 1918.

VII. The petition to recover in this case was filed on February 26, 1919.

Conclusion of Law.

Upon the foregoing findings of fact the court decides, as a conclusion of law, that the plaintiff is not entitled to recover, and its petition is therefore dismissed.

Judgment is rendered against the plaintiff for the cost of printing the record in this cause, the amount thereof to be entered by the chief clerk and collected by him according to law.

Graham, judge, delivered the opinion of the court:

In this suit the plaintiff seeks to have refunded taxes collected from it under section 407, title IV, act of September 8, 1916, which provides as follows:

Every corporation * * * shall pay annually a special excise tax with respect to carrying on or doing business by such corporation * * *.

The act, by its terms, provides for "a special excise tax" on corporations which had been doing business during the previous year of $0.50 per $1,000 on the value of the capital stock, this value to include surplus and undivided profits, the tax to be computed on the basis of the fair average value of the capital stock for the preceding year.

It is further provided in the said act as follows:

Sec. 409. That all administrative or special provisions of law, including the law relating to the assessment of taxes, so far as applicable, are hereby extended to and made a part of this title, and every person, firm, company, corporation, or association liable to any tax imposed by this title shall keep such records and render, under oath, such statements and returns as shall comply with such regulations as the commissioner of internal revenue, with the approval of the secretary of the treasury, may from time to time prescribe.

The amount of such annual tax shall in all cases be computed on the basis of the fair average value of the capital stock for the preceding year: * * * and, *provided, further,* that this tax shall not be imposed upon any corporation * * * not engaged in business during the preceding taxable year.

Any person who carries on any business or occupation for which special taxes are imposed by this title, without having paid the special tax thereon provided, shall, besides being liable to the payment of such special tax, be deemed guilty of a misdemeaner * * *—

and goes on to provide a penalty.

Thus it appears that all administrative or special provisions, including the law relating to the assessment of taxes, are made applicable to its enforcement. The act of October 1, 1890, 26 Stat., 624, which deals with the collection of special taxes, provides for the payment of these taxes in advance.

On October 19, 1916, the commissioner of internal revenue, with the approval of the secretary of the treasury, as authorized by law, promulgated regulations which adopted, as a basis of payment, the provisions of the said act of October 1, 1890, requiring payment in advance. These regulations contained the following:

1. *Time of filing returns.*—The capital-stock tax, which becomes effective January 1, 1917, will be payable in January, 1917, on returns to be made during that month for the six months ending June 30, 1917. In July, 1917, and annually thereafter, returns must again be made and the tax paid for the ensuing fiscal year.

On January 30, 1917, the plaintiff made a return for the six months ending June 30, 1917, showing that it was liable for the paymen of $2,977.75, and attached thereto a written protest against making the return. The plaintiff paid the sum above shown by its return to the collector of internal revenue, the tax being upon the basis of this return, without protest. On the 25th of July, 1917, the plaintiff made another return in the sum of $5,458.50, to which was attached a protest, and on the 13th day of September, 1917, paid this sum to the collector of internal revenue, attaching a protest against payment.

On October 28, 1917, the plaintiff filed with the treasury department an application for the refund of the aforesaid sums of money, which application was, on June 14, 1918, rejected and denied by the collector of internal revenue. The moneys have never been refunded. This suit was filed February 26, 1919, for the recovery of these two sums so paid.

From the above quotations from the act it will be seen that the tax is spoken of in the act as "a special excise tax with respect to carrying on or doing business," so that there can be no question that congress intended it to be what it called it, namely, "a special excise tax." The capital stock of the plaintiff corporation was a proper subject for taxation by the government, and within its constitutional powers of taxation, and the tax was due after the passage of the act and the promulgation of the said regulations by the treasury department. The presumption will be in favor of the legality of the act and that congress performed its duties, with the burden upon the plaintiff to show that the taxes it seeks to recover were not due—*Arthur v. Unkart* (96 U. S., 118); *Union Trust Co. of Indianapolis v. United States* (55 Ct. Cls.), and this the petitioner has failed to do.

The contention is that the tax was illegal because it was assessed and collected in advance under the regulations of the treasury department. The matter might be disposed of without further comment on the familiar principle that a suit can not be maintained to recover taxes once paid, and which were, in fact, due, because the manner of collecting the tax was not authorized.—*Schafer v. Craft* (144 Fed., 407); *Anderson v. Farmers' Loan & Trust Co.* (241 Fed., 322-329).

However, without regard to the question of advance payment, if these taxes were due, when collected, and had not been paid in advance, they would have been due and payable, the first installment on July 1, 1917, and the last installment on July 1, 1918; so that, at the time this suit was brought, on February 26, 1919, these taxes would have been due and payable over seven months, and consequently, the money for their payment was properly in the hands of the treasury department. If these taxes being due had not been paid, they would still be due and payable. Thus, this seems to be an effort to compel the treasury to take the money out of one hand and pass it into the other, without any benefit accruing to the petitioner.

It may be well to point out that, as appears from the foregoing quotations from it, the act itself contemplated the payment of this tax as a tax upon the right to the "carrying on or doing business," computed on the basis of the "fair average value of the capital stock for the preceding

year"—that is, a corporation must pay a tax on its capital stock for the preceding year in order to do business for the coming year.

In the light of the foregoing, it is clear that the interpretation of the act by the commissioner of internal revenue, with the approval of the secretary of the treasury, providing for payments in advance, was right. If another interpretation might have been put upon the act, it would have to be shown that the interpretation was clearly erroneous.—*Moore's case* (95 U. S., 760); *Tanner v. United States* (25 Ct. Cls., 68). This does not appear.

The petition is dismissed, and it is so ordered.

HAY, judge; DOWNEY, judge; BOOTH, judge; and CAMPBELL, chief justice, concur.

Pennsylvania Institute of Certified Public Accountants

At the annual meeting of the Pennsylvania Institute of Certified Public Accountants the following officers and directors were elected: President, Horace P. Griffith; vice-president, D. Vincent Johnson; secretary, Robert J. Bennett; treasurer, Charles S. Rockey. The following directors were elected for a term of two years: William J. Wilson, George Wilkinson, Joseph M. Pugh. The following directors were elected a year ago and their terms expire in 1922: James J. Burns, John R. Lynn.

New York State Society of Certified Public Accountants

At the annual meeting of the New York State Society of Certified Public Accountants held May 9, 1921, the following officers were elected for the ensuing year: Howard B. Cook, president; Robert H. Montgomery, first vice-president; Willis S. Whittlesey, second vice-president; James F. Farrell, secretary; James F. Hughes, treasurer.

Gray, Scheiber & Co. announce the removal of their offices to Guaranty Trust building, Fifth avenue and 44th street, New York.

Ernst & Ernst announce the removal of their Fort Worth office to Farmers and Mechanics' National Bank building.

Oscar Moss announces the opening of an office at 227 H. W. Hellman building, Los Angeles, California.

J. C. Baker & Co. announce the removal of their offices to 5 North La Salle street, Chicago.

Gustave A. Wuerfel announces the removal of his offices to 220 Broadway, New York.

F. A. Morrison & Co. announce the removal of their offices to 76 William street, New York.

Nathaniel Pomerance announces the removal of his office to 320 Broadway, New York.

Students' Department

Edited by H. A. Finney

Foreign Exchange

As one of the results of the world war, the foreign trade of the United States has been greatly stimulated, while the foreign exchange situation has been greatly disturbed. When exchange is restored to something like a normal condition and when European countries adjust their domestic and international affairs so that they can come again into the markets of the world on something like a pre-war basis, American foreign trade will unquestionably be greatly in excess of what it was before the war. It will then be necessary for all those who are engaged in producing anything which is in demand in foreign countries to understand the methods employed to settle accounts with their customers in those countries. This knowledge is equally essential to those who import foreign goods or who own enterprises conducting branches in foreign countries. Accountants will have to understand the principles involved in the accounting for foreign commerce and the conversion of foreign balances.

If all countries used the same form of coinage, were all on a gold basis and if all kept their circulating medium at par with gold, the problems connected with international finance would be comparatively simple and would not differ much from those connected with domestic exchange.

Domestic exchange forms the medium for the settlement of accounts within the boundaries of a single country or of a section of that country. For this purpose each of the large cities of the United States acts as a clearing house for the territory tributary to it, and New York is used as the clearing house for the whole nation.

If a cotton factor in Arkansas sells a lot of cotton in St. Louis, he could require the purchaser to send him the proceeds in actual currency by express. Not only would this be expensive; it would also be useless, because the factor has paid for the cotton by a cheque on his local bank and does not need the cash. When he shipped the cotton he probably drew on the purchaser with bill of lading attached, and sold the draft to his local bank as St. Louis exchange. If this were all, the local bank would have a credit with the St. Louis bank to which it sent the cotton draft, and this credit would be useless to it, unless it requested the St. Louis bank to ship currency, which is open to the same objection as in the case of the factor.

But this is not all. Several merchants in that section are obliged to pay for goods which they have purchased in St. Louis. They could go to the trouble and expense of sending money by express, but it is easier and cheaper to go to the local bank and buy drafts on St. Louis payable to their creditors in that city. In this way the proceeds of the cotton factor's draft are made to pay the bills of the local merchants. The bank acts as the intermediary in this exchange of credits, perhaps charging a small commission which is called exchange. This creates confusion in some minds, since the drafts and the bank's charges are each called by one name: exchange.

An element enters into the transactions of this character which is known as "the balance of trade." When shipments to St. Louis are steadily larger in value than the remittances of local merchants to their St. Louis creditors, the local bank's balance in St. Louis becomes too large and the balance of trade is against St. Louis. The local bank may be obliged to protect itself against the accumulation of a large balance in St. Louis of which it is unable to dispose, and as a means of protection it may charge the factor a commission, or exchange, on his draft on St. Louis. It is then said that St. Louis exchange is at a discount.

On the other hand when shipments to St. Louis are largely reduced, while the local merchants are still buying drafts, the balance of trade is in favor of St. Louis, and the local bank may be obliged to ship currency to St. Louis to keep its credit good or deposit in St. Louis cheques and drafts on other cities. It now protects itself by charging exchange on the drafts it sells, and St. Louis exchange is said to be at a premium. Of course, the extreme rates of discount and premium are governed by the cost of shipping currency.

As St. Louis and other large cities act as the settling agents for their respective sections, so New York has acted in the same capacity for the whole country. The larger territory covered allows more extensive transfers of credit than is possible in a single restricted section, because when the balance of trade is against one part of the country it is virtually sure to be against New York in another part. St. Louis may have too large a balance in New York when Chicago's balance is too small. St. Louis can then sell Chicago exchange on New York. If any settlement is then necessary between Chicago and St. Louis it can be made by a shipment of currency for the short distance between these two cities. Otherwise Chicago would have to ship currency to New York and New York would have to send an equivalent amount of currency to St. Louis. The short and inexpensive transfer along the base of the triangle saves both time and expense as compared with the transfer over the two long sides.

The movements of foreign exchange are governed by the same principles as are those of domestic exchange. The proceeds of the exports made by the United States to Europe are used to pay for imports from Europe and for the expenditures in normal times of the large number of American tourists abroad. When this country ships more than it receives in goods or spends abroad, the balance of trade is in our favor. This balance must be settled in gold. As it is very expensive to ship gold and as foreign banks do not wish to deplete their stock of the precious metal beyond a certain point, the expedient of raising the rate of interest allowed to American banks on their deposits is often adopted. If there is a prospect of a reversal of the balance of trade later, the American banks can afford to carry heavy balances in Europe, because they not only receive a good interest on their money but also make a profit by buying drafts on Europe at a low rate when they are plentiful and selling their own drafts at a high rate when European drafts are scarce.

When the balance of trade is against this country, the reverse action takes place and we have to ship gold to establish the equilibrium. But since it often happens that the balance of trade may be against us in one

country and in our favor in another, settlement may be made by a transfer of funds from the debtor to the creditor country.

London has been the clearing house for the world because the British banking system has branches in all commercial countries. In many places the only way to make a payment in any other country is by means of a draft on London. Until Germany committed financial as well as military suicide, she was attempting to make Berlin a secondary clearing house at least, by the establishment of German banks in important commercial cities throughout the world.

Until the passage of the federal reserve bank law, no banks in the United States could have a branch in a foreign country. Hence this country was almost entirely dependent upon British banks in its commerce with countries with which it did not have direct connection. This worked against the American merchant in more ways than one. The British branch bank in Buenos Aires, for instance, would always discriminate in favor of British merchants in the extent of its accommodations, if not in the rate of exchange, and the American merchant would receive his pay in a draft on London, which he would have to sell. He would thus pay exchange twice—once when his agent bought the draft in Buenos Aires, and again when he sold it in New York. In addition, he never knew how much he was to receive as his final proceeds until he received and sold the draft on London.

Banks in the United States are now authorized to establish branches in foreign countries and they have already done so in some of the principal cities of South America. Transactions between Argentina and the United States can now be settled in terms of dollars directly with New York instead of in sterling through London.

If all the commercial nations of the world were using gold as the standard of value instead of silver or an inflated paper currency, the problems of foreign exchange would be only those arising from the varying balance of trade and the cost of shipping gold from one country to another. When one country is on a gold and another on a silver basis, another complication is added: the variations in the relative values of the two standards. These variations depend on the price of silver bullion in the world market.

If a silver country owes a gold country $1,000 in the currency of the silver country, it must buy a draft on the gold country payable in gold of the value equivalent to 1,000 silver dollars. In addition to the other variations, there is also a question as to the equivalent values of gold and silver. If the price of silver bullion is such as to make a silver dollar equal to fifty cents in gold, a draft for $500 gold will pay the debt of $1,000 silver. If silver has risen so that a silver dollar is worth sixty cents in gold, the draft must be for $600. It makes no difference to the man in the silver country, for he pays $1,000 in his own currency in either case, but the man in the gold country makes or loses with the rise or fall in the price of silver.

On the other hand, if the debt is for $1,000 in gold, the man in the silver country must pay $2,000 in silver currency for it when the silver dollar is worth fifty cents, but only $1,666.67 when his dollar is worth sixty cents. In this case the man in the gold country is not affected, for

he receives $1,000 in gold in either event, but the man in the silver country saves money when silver rises and loses it when it falls.

If a concern whose main office is in a gold country invests in a branch in a silver country, such as a coffee plantation, the accounts in the home office will be in gold values and those at the plantation will be in silver. When a statement of the operations and condition of the whole concern is made by the home office, the values must be in gold. The process by which the one value is changed into the other is called the conversion of values.

There are no complications when a merchant in America sells goods to a merchant in a silver country such as China, at once draws a draft for the agreed price, attaches the bill of lading for the goods and sells the draft at once to an American bank. The American merchant treats the proceeds of the draft as the selling price of the goods and entirely ignores the fact that the draft was drawn in a foreign currency. In the same way if he imports goods from China the cost of the goods is the amount of the draft drawn on him. The same would be true in the case of goods shipped to or received from a gold country. The only complication would arise in case we were obliged to quote a price in the currency of the foreign country some time before he would be able to make the shipment. If exchange took a sharp turn against him, his profit would be reduced, while on the other hand a favorable turn would increase his profit.

The par of exchange is the value of one currency expressed in terms of another currency, based on the bullion value of each. Thus the par of the British pound sterling is $4.8665, which means that one pound sterling is the equivalent in weight and fineness of $4.8665. However, exchange is not quoted at a premium above or a discount below par. Exchange on London, Denmark, Holland, Norway, Sweden and Spain is usually quoted at the value of the foreign standard coin in the United States money. Exchange on France, Belgium, Italy and Switzerland is usually quoted at the value of a dollar in the foreign coinage. Thus, if it is desired to remit $1,000 to London when exchange is 4.89½, it is necessary to find how many pounds sterling at 4.89½ will be equal to $1,000, which is done by dividing 1,000 by 4.895, obtaining the quotient 204.29, or £204.29. To reduce the decimal .29, multiply by 20, the number of shillings in the pound. This gives 5.8 shillings. To reduce the decimal .8, multiply by 12, the number of pence in a shilling. This gives 9.6 pence, the nearest coin value of which is 9½ pence. The value of $1,000 in sterling at 4.89½ is £204 5s. 9½d.

The reverse process will reduce sterling to dollars. If it is desired to know how many dollars are needed to buy £204. 5s. 9½d. at 4.89½, reduce the shillings and pence to decimals of a pound.

9½ ÷ 12 (number of pence in a shilling) = .8 shilling.

5.8 ÷ 20 (number of shillings in a pound) = .29 pound.

Replacing 5s. 9½d. by the equivalent decimal of a pound,

£204.29 × 4.895 = $999.9995, or $1,000.

Converting values when the basis is the number of foreign coins to the dollar requires an exactly opposite procedure. The process is not as complicated as in the case of sterling because all the countries involved

use the decimal system in their coinage. The par value of the franc or lira (Italian) is 19.3 cents, or 5.1813 francs or lire to the dollar.

If it is required to find the cost of a draft on Antwerp for 1,000 francs when exchange is quoted at 5.19¾, it is evident that if 5.19¾ fr. are worth $1, 1,000 fr. will be worth as many dollars as 5.19¾ is contained in 1,000. Therefore 1,000 ÷ 5.1975 = 192.40, the required cost in dollars.

To find how many francs a given amount in dollars will purchase at a given rate of exchange, multiply the amount in dollars by the value in francs of one dollar. Thus, to find how large a draft in Paris can be bought for $192.40 when exchange is at 5.19¾, multiply 192.40 by 5.1975.

The process of computing the cost of exchange between two places by means of one or more intermediate exchanges is called the arbitrage of exchange. The object of using an intermediate exchange is to take advantage of variations in rates between different places. It is adopted when the rate of direct exchange is unfavorable.

To illustrate, a New York concern wishes to transfer $10,000 to its agent in Paris. The New York rate for francs is 5.25¼. Sterling may be bought in New York for 4.84½, and the rate between London and Paris is 25.73 francs to the pound sterling. Is it better to remit direct to Paris or to remit sterling to the agent in London with instructions for him to remit to the Paris agent?

If the $10,000 is used to buy a direct draft on Paris at 5.25¼, it will realize 52,525 francs. With sterling at 4.84½, $10,000 will buy £2,063.98 (10,000 ÷ 4.845). It is not necessary to reduce the decimal to shillings and pence. Multiplying 2,063.98 by 25.73, the number of francs in a pound, gives 53,162.05, the number of francs obtained. The Paris agent will therefore receive 637.05 francs more if the money is sent through London than if it is sent direct.

Unless there is some way to guarantee the rate between London and Paris this comparison can be made only on cable transfers. When the margin is not very large a slight change in the London-Paris rate might change a profit into a loss, during the time it would take to send a draft to London by mail.

Banks or brokers dealing in foreign exchange keep their accounts in one of two ways. The first, which is the usual method in the United States, resembles a single merchandise account with a running inventory, to which purchases are debited and sales credited both in quantities and values. At the closing date the balance in foreign currency is inventoried at the current rate, giving consideration to the various portions of the balance which are subject to cable transfers, to cheques and to time drafts. The United States money column is then balanced by an offsetting debit or credit to exchange, according to whether a loss or profit has been made.

An example will make this clearer. A dealer in sterling exchange had these entries during a certain month:

Bought at 4.858	£1,000 0 0	$4,858.00		Sold at 4.875	£100 0 0	$487.50
Bought at 4.86	500 0 0	2,430.00		Sold at 4.90	10 0 0	49.00
Interest allowed	2 10 0			Sold at 4.8675	600 0 0	2,920.50
Profit, cr. exch.		22.53		Balance	792 10 0	3,853.53
	1,502 10 0	7,310.53			1,502 10 0	7,310.53

The drafts bought and sold are recorded in both currencies, the interest allowed is charged in sterling only, as it is only the sterling balance that is affected. If the English bank had charged any commissions, interest or other expenses, the account would have contained a credit for them in sterling only. When the sterling balance is struck it is inserted in both currencies at the current rate for the day. The sterling columns will now balance. The amount necessary to balance the dollars is entered in the dollar column only, the offsetting entry being a debit or credit to exchange.

It is to be noted that part of the above profit is due to the interest allowed by the English bank. This might be credited to interest and charged in the dollar column at 4.86¼ (the current rate used for conversion of the balance of the account) or $12.16, reducing the credit to exchange at $10.37. Another complication arises when the drafts bought and sold are drawn at some time after sight, since interest to maturity will have to be taken into consideration in fixing the value of the balance.

The second method of carrying a foreign-exchange account reduces all values to the par of exchange, the difference between par and the actual price being treated as a debit or credit to exchange. This necessitates a debit and a credit column in the purchase register and in the sales register and also a par column in each. The purchase register would show:

Name	Draft	Price	Par	Dr. exchange	Cr. exchange
———	£1,000 0 0	$4,858.00	$4,866.50	....	8.50
———	500 0 0	2,430.00	2,433.25	....	3.25
The sales register would show:					
———	£ 100 0 0	$ 487.50	$ 486.65	....	.85
———	10 0 0	49.00	48.66	....	.34
———	600 0 0	2,920.50	2,919.90	....	.60

The ledger account would contain the purchases and sales at par, and the balance would be brought down at par, the interest having been entered in the dollar column also at $12.16 and credited at that amount. This would indicate the following profit:

On purchases		11.75
On sales		1.79
For interest		12.16
Total		25.70
Less apparent loss on balance of £792 10 0		
Value at par	3,856.70	
" " market	3,853.53	3.17
Net profit (as before)		22.53

When inhabitants of a gold-standard country invest money in branches in a country whose coinage is on a silver or paper money basis, the variations in the rate of exchange are apt to be very wide from time to time. The owners of the property must keep their accounts in gold values, while the foreign managers are obliged to keep theirs in the currency of the

country in which operations are conducted. If the enterprise is in a silver country and the home office is in the United States, the manager at the property must make his periodical reports in his local silver currency. When these reach the home office they must be converted into gold values at the rate that will express as nearly as possible the true condition of affairs. In order to ascertain the correct procedure it is necessary to analyze the conditions.

When the enterprise is started, the first steps will be the purchase of land, the construction of buildings and the purchase and installation of machinery. The purchase of the land and the erection of buildings will probably be paid for in silver currency. The money sent from the United States will be charged to land and buildings by the home office at the gold value of the drafts sent. The local manager will credit the home office with the silver value he receives and will charge land and buildings on the silver basis when he pays out the money. Machinery may be sent from this country. The cost including the freight would be charged to machinery by the home office at the gold value of the money expended. If the local manager put it on his books he would charge machinery and credit home office at the current rate of exchange. The money sent for the labor and other expense of installation would be charged by the home office in gold and by the manager in silver at the rates actually paid. When construction is finished, the total cost of the fixed assets is recorded in one place in gold and in the other in silver. These relative values are never changed, except as new fixed assets are added at the rate of exchange then current. In consolidating the home office and branch balance-sheets, the fixed assets at the branch would be taken up at the dollar values shown on the home-office books. Hence it is not necessary that the branch continue to carry the fixed assets at their cost in the local silver currency, and the fixed-asset accounts may be closed by a charge to the home-office account. If it is desired to continue to carry the fixed assets on the branch books as well as on the home-office books, it would be desirable to divide the home-office account on the branch books by setting up a home-office account for fixed assets and a home-office current account.

When the enterprise reaches the operating stage, the home office will be obliged to send money with which to carry on the business. This should be charged to a current account with the foreign branch, and not to the previous construction or capital account. The home office should keep this current account in both currencies, in silver in an inside set of debit and credit columns and in gold in the regular account columns. The silver debits will be the amount of the draft remitted by the home office, if that draft is drawn direct on the silver country, or the proceeds of a gold draft when the latter is sold by the manager of the plant.

Periodically the manager of the plant should render a report in which he should credit the home office with the silver value of the money received from it and should charge the home office with all his expenditures in silver, properly classified for statistical purposes. The home office should credit the current account in the inside column at the silver value actually expended and at the gold value of the remittances made, beginning with the first remittance at the rate shown on the debit side and then taking

up in turn the subsequent remittances. In this way the actual amount paid both in silver and in gold will be reflected in the accounts.

If the home office buys for gold and ships to the plant any raw materials or supplies that are not immediately used, it should charge and the plant should credit the silver value at the rate of exchange at the time of shipment. As the articles are used, it would seem the proper procedure to charge them to operating costs at the same rate. However, Sir A. Lowes Dickinson says, "The most satisfactory method of dealing with this condition is to keep the accounts of materials, stores and supplies originating in the United States in United States currency until they are used, and then to charge them out to the accounts concerned—whether construction or operating—at the rate of exchange current on the date of issue for consumption; in other words, these materials, etc., while in fact in China, are deemed to be in the United States until issued for consumption, and are only then passed through the current accounts between the two offices."

This is open to the objection that the accounts at the plant will not reflect the true conditions, as the plant may be in possession of a large amount of materials, etc., which will not appear on its books until used, and to the further objection that, if the materials are issued very frequently, the rate at which they must be charged to operations by the branch manager will be subject to constant variation with regard to actual cost, and that no silver value can be expressed on the home-office books until the report of the dates and quantities of the different issues is received in the United States.

When any finished products are shipped from the plant to the home office, they should be charged at cost in silver. The home office should credit them at the same figure in the silver column and at the current rate of exchange in the gold column.

At the close of the fiscal period, when the books are closed, no change is made in the debit balances of the fixed-asset accounts because of the established principle that fixed assets should be valued at cost, regardless of market fluctuations. In regard to the floating assets and liabilities, the custom is to convert the values at the rate of exchange current on the day of closing. There is considerable variation in the procedure for the valuation of nominal account balances—sometimes they are converted at an average rate for the period, and sometimes at the current rate at the end of the period. While the average-rate method is usually advocated on the ground that the earnings and expenses accrued during the period, this method is subject to the objection that a simple average of the rates of all days during the period fails to take into consideration the fact that transactions varied in volume from day to day. As the operations resulted in an increase or decrease of the net current assets at the branch and since these current assets and current liabilities are converted at the rate current at the end of the period, it would seem consistent to convert the current-account balances at the same rate.

The following example will illustrate the procedure of closing branch and home-office books and consolidating the revenue statements and balance-sheets.

PROBLEM

The trial balance of the London branch of the Eastern and Western Manufacturing Co. at December 31, 1919, follows:

Home-office current account		£ 54,000
Remittance account	£ 60,000	
Cash	7,000	
Accounts receivable	3,000	
Merchandise inventory, Jan. 1, 1919	4,000	
Merchandise from home office	50,000	
Expenses	5,000	
Sales		75,000
Accounts payable		1,000
Furniture and fixtures	1,000	
	£130,000	£130,000

Inventory, December 31, 1919, £5,000.

The rate of exchange current at the date of purchasing the furniture and fixtures was 4.83.

The current rate at January 1, 1919, was 4.64.

The average rate for the year was 4.65.

The current rate at December 31, 1919, was 4.665.

The trial balance at the same date drawn from the books of the home office was:

Capital stock		$ 75,000.00
Factory land	$ 10,000.00	
Factory building	40,000.00	
Raw material	30,000.00	
Purchases—raw material	450,000.00	
Goods in process, January 1, 1919	15,000.00	
Finished goods, January 1, 1919	8,000.00	
Productive labor	350,000.00	
Manufacturing expense	180,000.00	
Selling expense	20,000.00	
General expense	9,000.00	
Accounts receivable	12,265.00	
Cash	31,000.00	
Accounts payable		18,000.00
Reserve for depreciation—factory building		2,000.00
London branch current account	249,750.00	
Reserve for depreciation—London furniture and fixtures		500.00
Shipments to London branch		232,500.00
Sales		780,000.00
Remittances from London branch		279,000.00
Reserve for exchange fluctuations		2,515.00
Surplus		15,500.00
	$1,405,015.00	$1,405,015.00

Home-office inventories, December 31, 1919:

Raw materials	$35,000.00
Goods in process	13,000.00
Finished goods	16,000.00

Prepare:

(a) Closing entries on the branch books.

(b) Balance-sheet of branch after closing.

(c) Statement converting branch trial balance and December 31, 1919, inventory to the dollar values at which the various items should appear in the closing entries which will be made to take up the branch profit on the home-office books and in the branch balance-sheet consolidated with the home-office balance-sheet.

(d) Branch profit-and-loss statement for the year, from facts shown on the branch books, shown in pounds sterling and in dollars.

(e) Journal entries on the home-office books taking up the branch profit shown in the statement required in (d).

(f) Journal entries closing the home-office books, allowing $1,000.00 depreciation on the factory buildings and $500.00 depreciation on the furniture and fixtures of the branch.

(g) Statement of the London branch current account on the home-office books.

(h) Branch balance-sheet in pounds sterling and dollars, showing dollar balance of home-office current account in agreement with branch current account balance in (g).

(i) Working papers consolidating the branch and home-office balance-sheets.

(j) When the average rate is not known or is not to be used for nominal account conversions, the various conversions are made as follows:

Fixed assets at the rate current at the time of purchase.

Current assets and liabilities at current rate.

Opening inventory at rate at beginning of period.

Shipments from home office at balance of shipments account on home-office books.

Nominal accounts at current rate.

Prepare the following assuming that the average rate is not known:

Journal entry on home-office books taking up net profit shown by branch books.

Journal entry adjusting the branch current account and reserve for exchange.

(k) Assume that the home office does not keep a reserve for exchange, but absorbs the adjustment in the branch profit and loss account—show how the last entry under (j) would be made in that case, and draw up the branch profit and loss account as it would appear on the home-office books.

SOLUTION

(a) Closing entries on branch books.

Sales	£75,000	
Merchandise inventory, Dec. 31, 1919	5,000	
Profit and loss		£80,000
To set up inventory and close sales account		
Profit and loss	59,000	
Merchandise inventory, Jan. 1, 1919		4,000
Merchandise from home office		50,000
Expenses		5,000
To close merchandise cost and expense accounts		
Profit and loss	21,000	
Home-office current account		21,000
To close out net profit		
Home-office current account	60,000	
Remittance account		60,000
To close remittance account		

(b) EASTERN & WESTERN MANUFACTURING CO., LONDON BRANCH

Balance-Sheet—December 31, 1919

ASSETS		LIABILITIES	
Cash	£ 7,000	Accounts payable	£ 1,000
Accounts receivable	3,000	Home-office current	15,000
Merchandise inventory	5,000		
Furniture and fixtures	1,000		
	£16,000		£16,000

(c) *Statement of Conversion of Branch Trial Balance*

	£	£	Rate	$	$
Home-office current		54,000	Not converted—contra acct. on home-office books		
Remittance account.	60,000		Not converted—contra acct. on home-office books		
Cash	7,000		4.665	32,655.00	
Accounts receivable.	3,000		4.665	13,995.00	
Merc'dise inv. Jan. 1	4,000		4.64	18,560.00	
Merc'dise from h. o.	50,000		h. o. contra	232,500.00	
Expenses	5,000		4.65	23,250.00	
Sales		75,000	4.65		348,750.00
Accounts payable		1,000	4.665		4,665.00
Furniture and fixtures	1,000		4.83	4,830.00	
	130,000	130,000			

Inventory, December 31, 1919, £5,000 @ 4.665 = $23,325.00

(d) EASTERN & WESTERN MANUFACTURING CO., LONDON BRANCH

Profit and Loss Statement—Year Ending December 31, 1919

	Pounds sterling		Dollars	
Sales		75,000		348,750.00
Deduct cost of goods sold:				
Inventory	4,000		18,560.00	
Merchandise from home office	50,000		232,500.00	
Total	54,000		251,060.00	
Less inventory Dec. 31	5,000	49,000	23,325.00	227,735.00
Gross profit on sales		26,000		121,015.00
Deduct expenses		5,000		23,250.00
Net profit (subject to depreciation)		21,000		97,765.00

(e) Journal entries on home-office books taking up branch net profit.

London branch current account	97,765.00	
London branch profit-and-loss-account	274,310.00	
London branch profit-and-loss account		372,075

To credit branch profit and loss with:

Sales	£75,000 @ 4.65	348,750
Inventory Dec. 31	5,000 @ 4.665	23,325
Total credits		372,075

To debit branch profit and loss with:

Inventory Jan. 1	£ 4,000 @ 4.64	18,560
Mdse. from h. o.	50,000 @ h. o. bal.	232,500
Expenses	5,000 @ 4.65	23,250
Total debits		274,310
To charge current account with profit		97,765

(f) Journal entries closing home-office books.

London branch profit and loss account	500.00	
Reserve for dep'n, London furniture and fixtures		500.00
To provide one year's depreciation		
Shipments to London branch	232,500.00	
Manufacturing account		232,500.00
To close shipments account		
Raw material inventory	35,000.00	
Purchases—raw material		35,000.00
To set up December 31 inventory		

Purchases	30,000.00	
Raw material inventory, Jan. 1		30,000.00
To close Jan. 1 inventory		
Manufacturing account	991,000.00	
Goods in process, Jan. 1		15,000.00
Purchases—raw material		445,000.00
Productive labor		350,000.00
Manufacturing expense		180,000.00
Reserve for depreciation, factory building		1,000.00
To set up costs of manufacture		
Goods-in-process inventory	13,000.00	
Manufacturing account		13,000.00
To set up inventory, Dec. 31		
Selling account	773,500.00	
Manufacturing account		745,500.00
Finished goods, Jan. 1		8,000.00
Selling expense		20,000.00
To charge selling with finished goods and expenses		
Finished goods inventory	16,000.00	
Sales	780,000.00	
Selling account		796,000.00
To put present inventory on books, crediting selling account therewith, and closing sales to selling account		
Selling account	22,500.00	
Profit and loss		22,500.00
To close net profit on sales to profit and loss		
Profit and loss	9,000.00	
General expense		9,000.00
To close general expense account		
Profit and loss	13,500.00	
London branch profit and loss	97,265.00	
Surplus		110,765.00
To close home office and branch profits to surplus		
London branch current account	1,625.00	
Reserve for exchange fluctuations		1,625.00
Entry to raise current account balance representing net assets at branch to net conversion values.		
Remittances from London branch	279,000.00	
London branch—current account		279,000.00
To close remittance account to current account		

(g) *Statement of London Branch Current Account*
January 1, 1919, to December 31, 1919

Balance, January 1, 1919	249,750.00
Add branch profit for the year as shown by branch books, but before providing depreciation on furniture and fixtures	97,765.00
Total	347,515.00
Deduct remittances	279,000.00
Balance before exchange adjustment	68,515.00
Add charge to current account and credit to reserve to reconcile current account with branch balance-sheet at conversion values	1,625.00
Balance, December 31, 1919	70,140.00

(h) EASTERN & WESTERN MANUFACTURING CO., LONDON BRANCH
Balance-Sheet—December 31, 1919

	£	Rate	$
ASSETS			
Cash	7,000	4.665	32,655.00
Accounts receivable	3,000	4.665	13,995.00
Merchandise inventory	5,000	4.665	23,325.00
Furniture and fixtures	1,000	4.83	4,830.00
	16,000		74,805.00
LIABILITIES			
Accounts payable	1,000	4.665	4,665.00
Home-office current account	15,000	(To balance)	70,140.00
	16,000		74,805.00

(i) EASTERN & WESTERN MANUFACTURING COMPANY
Consolidated Balance-Sheet Working Papers—December 31, 1919

	Home office	Branch	Eliminations	Consolid'd
ASSETS				
Factory land	10,000	.....	.....	10,000
Factory buildings	40,000	.....	.....	40,000
Raw materials	35,000	.....	.....	35,000
Goods in process	13,000	.....	.....	13,000
Finished goods	16,000	23,325	.....	39,325
Accounts receivable	12,265	13,995	.....	26,260
London branch current	70,140	.....	70,140	.....
Cash	31,000	32,655	.....	.....
Furniture and fixtures	.....	4,830	.....	4,830
	227,405	74,805	70,140	232,070

LIABILITIES

Capital stock	75,000	.....	.....	75,000
Accounts payable	18,000	4,665	.....	22,665
Reserve, dep'n. bldgs.	3,000	.....	.....	3,000
Reserve, dep'n. furniture and fixtures	1,000	.....	.....	1,000
Reserve for exchange	4,140	.....	.....	4,140
Surplus	126,265	.....	.....	126,265
Home-office current	.....	70,140	70,140	.....
	227,405	74,805	70,140	232,070

(j) Journal entries on home-office books taking up branch net profit, when nominal account balances are converted at current instead of average rates:

London branch current account	98,815.00	
London branch profit and loss account	274,385.00	
London branch profit and loss account		373,200.00

To credit branch profit and loss with:

Sales	£75,000 @ 4.665	349,875
Inventory Dec. 31	5,000 @ 4.665	23,325
Total		373,200

To charge branch profit and loss with:

Inventory Jan. 1.	£ 4,000 @ 4.64	18,560
Mdse. from h. o.	50,000 @ h. o. bal.	232,500
Expenses	5,000 @ 4.665	23,325
Total		274,385
To charge branch current with profit		98,815

The current account on the home-office books would now stand:

Balance before closing (per trial balance)	249,750.00
Add profit	98,815.00
Total debits	348,565.00
Less remittances	279,000.00
Balance	69,565.00

London branch current account	575.00	
Reserve for exchange fluctuations		575.00

To raise current account balance to conversion value. of net assets at branch.

When a reserve for exchange is kept it is on the theory that the apparent profit represented by the exchange adjustment may be apparent only and

that it may be reduced or wiped out by future adjustments when the exchange rates are not favorable. Hence instead of passing the credit through profit and loss it is thrown into a reserve where it will be available to absorb possible exchange losses in future. Assuming that no reserve is kept, the adjustment would be made as follows:

(k) Closing entry for exchange adjustment if no reserve is kept.

London branch current account	575.00	
London branch profit and loss account		575.00

To adjust current account to conversion value of net assets at branch.

London Branch Profit and Loss Account

(On home-office books)

1919			1919		
Dec. 31.	Inventory, Jan. 1...	18,560	Dec. 31.	Sales	349,875
31.	Shipments from home office	232,500	31.	Inventory, Dec. 31..	23,325
31.	Expenses	23,325			
31.	Profit per br. books	98,815			
		373,200			373,200
31.	Depreciation, furniture and fixtures	500	31.	Profit, down	98,815
31.	Net profit to surplus	98,890	31.	Exchange	575
		99,390			99,390

F. W. Hilditch & Co. announce the removal of their offices to 17 east 42nd street, New York.

William G. Adkins announces the removal of his Chicago office to 37 south Wabash avenue.

Waldman, Schoolman & Co. announce the removal of their offices to 511 Fifth avenue, New York.

Edward A. McAllister announces the opening of an office at 2 Rector street, New York.

William H. Willis announces the opening of an office at 1400 Broadway, New York.

Max Meyer announces the removal of his office to 253 Broadway, New York.

David B. Jacobs announces the removal of his office to 217 Broadway, New York.

Book Reviews

EXCESS PROFITS TAX PROCEDURE, 1921, by ROBERT H. MONTGOMERY. *The Ronald Press Co.,* New York.

To the future historian the excess-profits-tax laws of 1917 and 1918 (the latter with some modifications extending to 1920) will prove an interesting and perhaps amusing revelation of the congressional mind. Ostensibly passed purely for revenue purposes, it was no secret that congress not only sought to prevent capital from securing inordinate war profits but also to restrict all profits regardless of their source. It produced revenues beyond all expectations, but it utterly failed to prevent huge war profits. The law of 1917 was so badly drawn that it was incomprehensible and unworkable in spots, but it was successful as a revenue producer because the treasury department had the courage to interpret its terms liberally, even in practical defiance of the law itself, strictly construed. Applying the old-time freight-rate maxim of the railroads, "all the traffic will bear"—a maxim anathema to Washington statesmen since the '80s—congress loudly proclaimed its intention to tax all classes in accordance with their ability to pay. But the corporation-baiters could not resist the opportunity to discriminate against corporation profits in the 1917 law, and in the 1918 law openly threw the entire burden of the excess-profits tax upon the corporations. The result was that many small corporations were unjustly burdened while individuals and firms with equal profits escaped entirely. Finally, the 1918 law was not enacted until February, 1919, fourteen months after its effective date of January 1, 1918, and only nineteen days before the returns for 1918 were due to be filed. Considering these salient facts and adding the many confused and obscure provisions of the laws, provisions which have needed thousands of treasury decisions and departmental rulings to explain them, the historian may well marvel at the level of congressional intelligence thus indicated.

In spite of glaring inequities and injustices, the American business man paid—and paid cheerfully. It was part of his bit to win the war. Even since the armistice it is recognized by all intelligent men that heavy taxation is inevitable, only it is expected that congress will as soon as possible readjust the burdens so they will bear equitably upon all. But what did and does exasperate the average taxpayer is the obligation to prepare returns under laws which take the combined skill of lawyers and expert accountants to interpret. It was bad enough at the beginning, when each did the best he could, but it became aggravating beyond endurance when there came a flood of treasury letters demanding further details, followed by re-assessments galore. Tales of the large increase in the working forces of the treasury made necessary by the tremendous influx of complicated returns made the taxpayer uneasy at the growing cost of administration. The last straw seemed to have been added when thousands of business men and corporations received the treasury letter naively asking them to waive

their statutory limitation rights under the 1917 law because, forsooth, with all its increased force (from 3,000 to 38,000 during the war) it had not been possible to complete the task of passing upon the returns for 1917 alone! In many cases this letter was the first intimation to the taxpayer that he might yet have to reopen matters which he supposed were settled long ago.

In all these dark clouds of confusion and doubt there was one fairly bright spot on the horizon for professional accountants, public and private: the series of books on federal income-tax and excess-profits-tax procedure by Colonel Montgomery. The colonel has a record for personal war service, of which we as fellow-members of the profession are proud, but undoubtedly if he were called upon to answer the famous war-time poster query "What did YOU do during the great war?" his proper reply would be "I saved thousands of accountants, business-men and corporation officers from mental breakdown and nervous prostration." And that is no joke, either. Only recently a newspaper item recorded the incarceration in an asylum of a taxpayer insane from worry over the 1917 return.

Many a professional accountant, who can without boasting claim to be fairly skilled in the science of accounting, cheerfully acknowledges his indebtedness to Colonel Montgomery's manuals of federal-tax procedure. With the reasonable, though perhaps not certain, assurance that congress will soon repeal the fearful and wonderful excess-profits-tax measure, this review takes on the character of a valedictory. Unless the courts of the treasury department make unexpectedly radical and substantial changes in rulings and interpretations of the 1917 and 1918 laws, it is doubtful if a new edition of this volume will be needed. Barring that and with the law repealed, this 1921 volume will be a safe and standard guide for those who will be struggling for the next five years over the excess-profits assessments for 1918 to 1920.

It goes without saying that this book, unlike the *Federal-Income-Tax Procedure,* to which it is really a supplement, appeals to a limited class—the professional accountant, public and private. It is hardly necessary to describe it to that class which is already familiar with and uses it. To the average business man with a superficial knowledge of higher accounting it cannot be much more intelligible than the law itself. He may be helped to understand the principles upon which the procedure is based, but he will find it difficult to apply them to the details of his own business. It is somewhat analogous to business law. Every business man certainly should be familiar with the fundamental principles of business law, but he consults a lawyer when he enters litigation. Similarly in nine cases out of ten the business man who reads with understanding Colonel Montgomery's exposition of the excess-profits-tax law turns to the professional accountant for aid when he realizes the complexities and confusions with which he must struggle.

The section on federal capital-stock (excise) tax has been transferred to this volume from *Income-Tax Procedure* for 1921 to save

space in the latter volume and presumably will be restored to it in future editions. In some respects this section covers points fully as obscure and difficult as in the excess-profits sections. It offers even a larger field for the skilled accountant, in that all capital employed must be considered, not merely that which the law defines as "invested capital." It is probably too much to hope that congress will take any steps to simplify this law. Being purely an excise tax it is difficult for the non-congressional mind to see why the basis upon which the tax is levied should not be simply the par value of the capital stock (amount paid in, in case of no par value) plus the surplus and borrowed capital according to the corporation's annual reports to its stockholders. We should then have a stabilized basis for the assessment of the tax, and if the operation of the law should lead to more conservatism in capitalization, so much the better. The gain would be in reducing the amount of detailed work now required in making up the three-fold return. Two-thirds of that work is obviously wasted time and effort, as the government levies the tax on the highest value of stock thus shown. But, after all, why an excise tax on corporations at all? Why not add enough to the corporation income-tax rate to produce the additional revenue raised by the excise tax?

The hearty thanks of the profession are due to Colonel Montgomery for his series of books on the excess-profits-tax procedure; nevertheless the reviewer bids what he hopes is a lasting farewell to them in this edition of 1921!

W. H. Lawton.

NEW YORK STATE INCOME-TAX PROCEDURE, 1921, by Robert H. Montgomery. *The Ronald Press Co.,* New York.

The description of procedure to be followed in the case of the individual income-tax law of New York is along the same lines as the author's *Federal Income-Tax Procedure.* The New York law being based on the federal it naturally follows that much of the procedure in this book is taken verbatim from the federal volume, but there are enough differences in the laws and regulations to require careful study on the part of the practitioner who prepares both federal and state returns. One might think the differences in the state law and procedure might perhaps be covered in the federal volume in the form of notes or an appendix, but considering that the federal procedure is in demand all over the country while the New York is of interest to those only within a limited area, the wisdom of a supplementary volume is apparent. Other states have and will have similar income-tax laws, and we may confidently look to enterprising members of the institute to compile similar procedures for their respective states.

Part II of the *New York Procedure* is devoted to the franchise tax on corporations doing business in the state, which is in effect a tax on their incomes. Not all corporations are subject to this tax, there being six classes which are taxed under specific sections of the law of 1909 and two classes which are exempt, but practically the tax is levied on all manufacturing and trading corporations, domestic and foreign, doing busi-

ness in the state. What constitutes "doing business in the state" furnishes material for a long discussion (chap. XXI) from which one turns with a feeling of helpless despair over the fine-spun distinctions of the courts. Otherwise the francise-tax law is rather a model of simplicity, the tax being based primarily on the entire net income as shown in item 27, schedule A, of the federal return. There is provision for the further return of any increases or reductions of this item made by the federal tax authorities. This relieves the state of much of the burden of auditing corporate returns, and should save the tax-payer considerable trouble and annoyance.

Accountants will particularly commend the appendices giving graphic illustrations of filling returns and making up statements reconciling state with federal computations.

W. H. LAWTON.

Edwin Harvey, Jr., and Lewis C. Fuller announce that owing to the death of John R. Sparrow, the firm name of Sparrow, Harvey & Co. has been changed to Harvey, Fuller & Co. The offices of the firm remain at 38 Park Row, New York.

Riedell & Sulzer announce the removal of their office to 1819 Broadway, New York, and the opening of a branch office in the Tradesmen's National Bank building, Oklahoma City, Oklahoma.

Archie F. Reeve, Joel E. Sammet and Leonard Bickwit announce the formation of a partnership under the firm name of Reeve, Sammet & Bickwit, with offices at 5 Beekman street, New York.

Courter & Rhyne and William A. Shenton announce the consolidation of their practices under the firm name of Courter, Rhyne & Shenton, with offices at 34 Pine street, New York.

Edmonds & Bouton, Inc., announce the removal of their New York offices to 17-27 Cedar street, and the opening of an office at 1645 La Brea avenue, Los Angeles, California.

George K. Hyslop and Dougall McCallum announce the formation of a partnership under the firm name of Hyslop & McCallum with offices at 42 Broadway, New York.

The Bankers Audit Co., of Spokane, and G. M. Gaylord & Co., of Tacoma, announce the consolidation of their practices under the name of Gaylord Bros., Inc.

The American Audit Co. announces that Charles W. Perry has been appointed resident manager of its branch office in Bellevue Court building, Philadelphia.

Beesley-Reeves & Co. announce the removal of their offices to 317 McIntyre building, Salt Lake City, Utah.

Correspondence

Depreciation and the Dollar

Editor, The Journal of Accountancy:

SIR: I am very much interested in the article by J. Hugh Jackson, appearing in the February issue of the JOURNAL. It presents in convincing style the principal arguments which I have so often more vaguely urged to our clients on the question of cost as a basis for computing depreciation during the period of high price levels through which we have just been passing.

But notwithstanding that for practical purposes the writer agrees with Mr. Jackson on the question of cost as a basis for depreciation charges, yet it has been my opinion that there has been a condition involved in this question which is not receiving due consideration by those who are discussing and writing on this phase of the topic of depreciation.

It may be said, without particular reference to the recent high price levels, that there are two general causes, either or both of which may be responsible for an increase in cost of replacing depreciable property over its original cost; and these causes differ fundamentally as to their bearing on depreciation charges. When depreciable assets are carried on the books at cost the ledger account is, in a sense, an equation which may be interpreted to read:

Cost value of asset = blank dollars.

We are accustomed to consider the dollar as a standard unit-of-value measure and to assign to it the same meaning whenever and wherever it may appear. In other words, we adopt it as a fixed yardstick by which we measure all other property values. But is this concept of the dollar safe when considering cost values for depreciation purposes and such cost values are to be used throughout a period of years during which price levels are changing? The real value of the dollar is its purchasing power, which changes as prices rise and fall; and our equation above therefore contains a variable for its right-hand term and is therefore without meaning until the term "dollars" is explained and defined. If we substitute for the above equation one which reads,

Steam shovel (cost value) = $50,000.00

no one, however familiar with prices of steam shovels he may be, will understand from this equation alone the grade or kind of steam shovel purchased. He will require additional information as to the date of the purchase, i. e., the kind of dollars invested in the shovel.

If in normal times when price levels are approximately stationary, the United States government were to revise its monetary system and apply different names to our coins and currency and should apply the name dollar in the revised system to the measure of value previously indicated by our half-dollar, any one would at once recognize that if we expected to retain the old name (dollars) we would have to increase the number of dollars shown in our former accounts by 100%. But when a similar condition is brought about through the stealthy process of gradual price

increases so that the name dollar which formerly represented the purchase price of 100% of a commodity now represents the purchase price of only 50% of the same commodity, we become confused as to how to interpret the situation and how to reflect it in our accounts.

Let the following two equations be assumed:

(1) Plant-original cost value = forty thousand 1915 dollars.

(2) Plant-expected replacement cost value = fifty thousand 1925 dollars.

The increased cost of replacement over original cost value may be due to

(1) Change in relative intrinsic value of plant as compared with other property values (left-hand term of the equation);

(2) Change in the purchasing power of the dollar due to changing price levels (right-hand term of the equation);

(3) A combination of changes in both terms of the equation.

If the increased cost of replacement is due solely to an increased relative intrinsic value of the plant as compared with values of other property (left-hand term of the equation), while price levels remain the same as at date of original cost, it is evident that original cost should be the basis for depreciation charges. But if the increased cost of replacement is due primarily to the general increased price levels of all property, that is, to the diminished purchasing power of the dollar (right-hand term of the equation), it appears that, theoretically at least, the basis for depreciation charges should be the reproduction cost value.

The purpose of the depreciation charges is to return to the investor the equivalent of, not only the same number of dollars invested, but also the same kind of dollars invested.

For illustration, an investor who in the year 1915 paid fifty thousand 1915 dollars for a steam shovel with a useful life of five years, and in 1920 finds himself in possession of only fifty thousand 1920 dollars as depreciation reserve, has not recovered the equivalent of the fifty thousand 1915 dollars which he invested in the shovel.

If we may safely consider that price levels and the purchasing power of a dollar have a definite fixed normal position, and that all movements above and below this fixed location represent merely temporary swings which will return again to the fixed normal starting point, then the basis of cost for computing depreciation charges, perhaps, in the end always will accomplish the true purpose of the depreciation charge for the company that is started in normal times and continues permanently in the same line of business through complete cycles of normal and abnormal times. But for a company which is started in normal times and is concluded in abnormal times or one which starts in abnormal times and is ended in normal times, the cost basis for depreciation will not accomplish the true purpose of a depreciation charge.

It is recognized that while the theory herein discussed may have some merit, the impossibility of accurately forecasting either the fluctuations of price levels or the term of the useful life of depreciable property and the impracticability of adjusting book values of permanent assets for every fluctuation in price levels render the plan of little practical worth. However, it is believed that when reproduction cost exceeds original cost,

and such excess is due to increased price levels instead of to increased intrinsic relative value of the property, the cost-value basis for computing depreciation does not accomplish the purpose for which depreciation charges are made, and that this is especially true in the case of business which was started in the period of low pre-war prices and ended in the recent years of abnormally high price levels. Considering also the importance which the depreciation question now holds, and the fact that it is still only in the development stage, it would seem that any theory which contains a grain of truth, however impracticable of application in the light of our present knowledge of the subject, should receive full discussion and consideration by the accounting profession.

Yours truly,

J. M. Chenoweth.

Indianapolis, Indiana.

Samuel E. Tromley and Fred R. Payne announce the formation of a partnership under the firm name of Tromley & Payne, with offices in the Northwestern Bank building, Portland, Oregon.

William A. Milligan & Co. announce the removal of their offices to the Canadian Pacific building, Madison avenue and 43rd street, New York.

Charles E. Van Dame & Co. announce the removal of their offices to 1123 Stock Exchange building, Los Angeles, California.

Pogson, Peloubet & Co. announce the removal of their offices to the Cunard building, 25 Broadway, New York.

Boyce, Hughes & Farrell announce the removal of their offices to 110 William street, New York.

Mitchell & Ferris, New York, announce that Leslie N. Simson has become a partner in the firm.

Edward W. Shoemaker announces the removal of his office to 15 William street, New York.

Otho G. Cartwright announces the removal of his offices to 31 Nassau street, New York.

Ernest B. Cobb announces the opening of an office at 150 Nassau street, New York.

Henry Varay announces the removal of his office to 76 William street, New York.

Current Literature

ACCOUNTANCY

History

Young, J. Haydon. *History of Accounting, Auditing and Bookkeeping.* CANADIAN CHARTERED ACCOUNTANT, April, 1921, p. 225-33.

ACCOUNTANTS' SOCIETIES

Nau, Carl H. *Aims of the Institute.* JOURNAL OF ACCOUNTANCY, May, 1921, p. 321-8.

Nau, Carl H. *American Institute of Accountants.* JOURNAL OF ACCOUNTANCY, February, 1921, p. 103-9.

ACCOUNTING

Hoover, Simon Robert. *Bookkeeping and Accounting Practice.* Chicago, A. W. Shaw Co., 1920. 301 p. $5.

AGRICULTURE

Accounting

Norton, L. J. *Complete Accounting System in Operation.* MARKET GROWERS' JOURNAL, April 1, 1921, p. 256.

Valuation

Wood, James. *Farm Valuations;* being the second of a series of articles dealing with farmers' accounts. ACCOUNTANTS' MAGAZINE, April, 1921, p. 229-35.

AUTOMOBILES

Cost accounting

Sniffen, P. L. *Keeping Truck Records and Figuring the Costs.* BRICK AND CLAY RECORD, April 5, 1921, p. 570-3.

BALANCE SHEETS

Sweet, Homer N. *Treatment of Commitments of Purchasers, etc., in Certified Balance-sheets.* JOURNAL OF ACCOUNTANCY, March, 1921, p. 167-72.

BANK ACCOUNTS

Dawson, J. G. *Banking Arrangements.* BUSINESS ORGANIZATION AND MANAGEMENT, May, 1921, p. 139-41.

BANKRUPTCY

Canada

Wade, Osler. *Dominion Bankruptcy Act.* CANADIAN CHARTERED ACCOUNTANT, April, 1921, p. 234-53.

BANKS AND BANKING

Law

Bill Amending Edge Act. COMMERCIAL AND FINANCIAL CHRONICLE, April 16, 1921, p. 1569.

Proposed Public Audit of Banks in Great Britain. CANADIAN CHARTERED ACCOUNTANT, April, 1921, p. 275.

BANKS AND BANKING, TRUST COMPANIES

Littleton, William G. *General Functions of a Trust Company Doing Business in Philadelphia,* being an address delivered before the Philadelphia chapter, American Institute of Banking, Feb. 7, 1921. Federal Trust Company, 1921. 26 p.

BUDGETS

Municipal

Rightor, C. E. *City Manager and the Municipal Budget.* AMERICAN CITY, May, 1921, p. 527-33.

National

Warwick, Walter W. *Budget, Just Common Sense;* it would rid the government of brainless bookkeeping systems and give us all, as stockholders, a better and clearer knowledge of how our biggest business stands. NATION'S BUSINESS, May, 1921, p. 20-21.

BUSINESS

Sells, Elijah W. *You Can't Judge Your Business by the Past Three Years;* if it is to live through the next three years you must not make the mistakes which cause 75 per cent. of all businesses that are started to fail; what I have learned about these mistakes through years of investigation. AMERICAN MAGAZINE, March, 1921, p. 16, 58-60, 62.

CAPITAL

Addington, Keene H. *Invested Capital from a Legal Standpoint as Applied to Excess- and War-Profits Taxation.* JOURNAL OF ACCOUNTANCY, Feb., 1921, p. 110-20.

CAPITAL ACCOUNTS

Elsey, H. J. G. *Australasian Accounting, Capital Accounts.* ACCOUNTANT, April 2, 1921, p. 395-6.

COAL TRADE

Cost accounting

Combined Cost Accounting and Perpetual Inventory System for Retailers. AMERICAN LUMBERMAN, March 19, 1921, p. 52-3.

COMMISSIONS

Van Oss, A. *Computation of Commissions and Federal Taxes where Commissions are Based upon Profits after Deducting Taxes.* JOURNAL OF ACCOUNTANCY, Jan., 1921, p. 1-20.

CONTRACTORS

Cost accounting

Austin, F. H. *Cost Keeping on Construction Work.* MUNICIPAL ENGINEERING, March, 1921, p. 121-3.

COST AND FACTORY ACCOUNTING

Allan, James. *Practical Costing.* BUSINESS ORGANIZATION AND MANAGEMENT, May, 1921, p. 156-8.

Atkinson, H. *Scientific Management; Costing.* ENGINEERING AND INDUSTRIAL MANAGEMENT, March 31, 1921, p. 370-1.

Burke, T. J. *Why Install a Cost System.* PAPER, March 2, 1921, p. 13.

Costing as an Aid to Management. ENGINEERING AND INDUSTRIAL MANAGEMENT, March 10, 1921, p. 300-1.

Feil, G. J. J. *"Wherefore" of Cost Accounting.* ACCOUNTING AND COMMERCE, March, 1921, p. 280-1.

Grainger, W. H. *Economics in Relation to Costing.* ENGINEERING AND INDUSTRIAL MANAGEMENT, March 24, 1921, p. 345-7.

Kelly, P. B. *Standard Accounting System.* JOURNAL OF ELECTRICITY, March 1, 1921, p. 234-7.

Knoeppel, C. E. *How to Get Back to Normal Quickly.* FOUNDRY, March 1-15, 1921, p. 176-8, 223-4. IRON TRADE REVIEW, March 10-17, 1921, p. 692-4, 790-1.

Lunt, H. Julius. *Periodical Financial Cost Returns.* ACCOUNTANT, April 30, 1921, p. 533-8.

Newlove, G. H. *Manufacturing Accounts.* JOURNAL OF ACCOUNTANCY, March, 1921, p. 176-86.

Opinions of Leading Executives on Value of Cost Systems. PAPER, March 9, 1921, p. 17-9.

Overhead

Williams, C. B. *Treatment of Overhead when Production Is Below Normal.* JOURNAL OF ACCOUNTANCY, May, 1921, p. 336-42.

COTTON MILLS

Accounting

Brundage, Percival F. *Distinctive Features of Cotton Goods Accounts.* JOURNAL OF ACCOUNTANCY, April, 1921, p. 266-74.

DEPRECIATION, DEPLETION AND OBSOLESCENCE

Jackson, J. Hugh. *Some Problems in Depreciation.* JOURNAL OF ACCOUNTANCY, Feb., 1921, p. 81-102.

Ties

Hicks, P. R. *Estimated Service Life of Western Tie Timber.* RAILWAY AGE, April 22, 1921, p. 996-7.

ELECTRIC AND STREET RAILROADS

Cost accounting

Palmer, E. A. *Maintenance Cost Accounting;* system used by San Francisco-Sacramento railroad has proved invaluable as means of supplying actual cost data from which to decide whether maintenance of various parts of equipment is satisfactorily carried on in relation to road performance. ELECTRIC RAILWAY JOURNAL, April 16, 1921, p. 715-8.

Utilising Figures to Keep Down Costs. ELECTRIC RAILWAY JOURNAL, March 19, 1921, p. 523-4.

Fares

Supreme Court Decides Cities Cannot Enforce Confiscatory Transit Fares. COMMERCIAL AND FINANCIAL CHRONICLE, April 23, 1921, p. 1700-2.

Finance

Crouse, D. E. *Budget System which Produces Results;* the Rochester and Syracuse railroad employs a simple means for predicting income and outgo. ELECTRIC RAILWAY JOURNAL, April 30, 1921, p. 802-4.

Inventories

Walton, L. A. *Perpetual Inventory.* AERA, May, 1921, p. 1010-4.

Valuation

Method Used in New Jersey Valuation; an analysis showing how the reproduction costs on two price bases were determined and used in reaching the value of $125,000,000 for rate-making purposes. ELECTRIC RAILWAY JOURNAL, April 23, 1921, p. 767-70.

ELECTRIC INDUSTRIES

Cost accounting

Kelly, P. B. *University Course in Practical Cost Accounting.* JOURNAL OF ELECTRICITY, March 15, April 1, 1921, p. 294-6, 348.50.

EXAMINATIONS

Bexell, J. A. *Proposal for Junior C. P. A. Examinations.* JOURNAL OF ACCOUNTANCY, March 1921, p. 161-6.

American Institute of Accountants

American Institute of Accountants. *Circular of Information; Syllabus; Bibliography.* 12 p. JOURNAL OF ACCOUNTANCY, March, 1921, p. 231-7.

EXECUTORS AND TRUSTEES

Accounting

Lyde, H. W. *Trust Accounts.* AUSTRALASIAN ACCOUNTANT AND SECRETARY, March, 1921, p. 84-8.

FOREIGN EXCHANGE

Dean, H. G. P. *Some Problems of Foreign Exchange.* JOURNAL OF ACCOUNTANCY, Jan., 1921, p. 30-47.

Dickson, James. *Foreign Exchange Fluctuations.* ACCOUNTANT, April 9, 1921, p. 417-22.

Gareis, Albert L. *Foreign-exchange Arbitrage in Joint Accounts.* JOURNAL OF ACCOUNTANCY, May, 1921, p. 329-35.

FRAUD

De Paula, F. R. M. *Detection of Fraud in Accounts.* ACCOUNTANT, April 16, 1921, p. 470-5.

Hunt, E. W. *Prevention and Detection of Fraud in Accounts.* ACCOUNTING AND COMMERCE, March, 1921, p. 283-8.

GRAPHIC METHODS

Robert Morris associates. *Barometrics;* a graphic explanation of the method by which the figures are developed. Lansdowne, Pa., Robert Morris associates. 18 p. $.75.

HOTELS

Accounting

Macmahon, A. G. *Accounting for a Modern Hotel.* JOURNAL OF ACCOUNTANCY, April, 1921, p. 241-9.

INCOME

Is Increase in the Value of Capital Income? The doctors disagree—the court decides; letters of Professors Fred R. Fairchild and Robert M. Haig to the New York *Evening Post,* reprinted from the issues of February 26 and March 16, 1921, with description of the decision of the Supreme Court. NATIONAL TAX ASSOCIATION BULLETIN, April, 1921, p. 213-7.

INVENTORIES

Geist, Harry. *Methods of Taking Inventory.* PACE STUDENT, May, 1921, p. 91-2.

Moeran, Edward H. *Auditor's Responsibility in Regard to Verification of Inventories.* ACCOUNTANT, April 30, 1921, p. 553-6. CANADIAN CHARTERED ACCOUNTANT, Jan., 1921, p. 185-93.

INVESTIGATIONS

Edwards, George. *Business Investigations.* CANADIAN CHARTERED ACCOUNTANT, April, 1921, p. 254-64.

LAW

Claremont Law Reports, selected cases and statutes for professional accountants and business executives. New York, Claremont Press. $15.

LIQUIDATIONS AND RECEIVERSHIPS

Accounting

Root, Morris, J. *Receivership Accounting.* JOURNAL OF ACCOUNTANCY, April, 1921, p. 275-85.

LUMBER TRADE

Cost accounting

Combined Cost Accounting and Perpetual Inventory System for Retailers. AMERICAN LUMBERMAN, March 19, 1921, p. 52-3.

MACHINE TOOL INDUSTRY

Cost accounting

Report on the Uniform Cost Accounting Plan. IRON AGE, March 3, 1921, p. 563-5. IRON TRADE REVIEW, March 3, 1921, p. 642-3.

MANAGEMENT

Steele, F. R. Carnegie. *Limitations of System.* JOURNAL OF ACCOUNTANCY, Jan., 1921, p. 21-9.

MARKET GARDENING

Accounting

Work, P. *Keeping Accounts on Vegetable Farms.* MARKET GROWERS' JOURNAL, April 1, 1921, p. 234.

MECHANICAL DEVICES

Desborough, W. *Office Machines, Appliances and Methods.* London, Sir Isaac Pitman & Sons, 1921. 147 p. $1.75.

MINING AND METALLURGY, COAL

Costs

Smith, George Otis. *Cost of a Ton of Coal.* COAL AGE, May 12, 1921, p. 870-1.

MOTOR BUS

Detroit's Motor Bus System. ELECTRIC RAILWAY JOURNAL, April 23, 1921, p. 765-6.

MUNICIPAL

Accounting

Lambert, Roger D. *Short-term Mortgages and Sinking Funds.* ACCOUNTANT, April 23, 1921, p. 493-512.

NAILS, TACKS, ETC.

Accounting

Descoteaux, George N. *Accounting for the Nail and Tack Industry.* JOURNAL OF ACCOUNTANCY, May, 1921, 6. 357-63.

OFFICE MANAGEMENT

Handford, W. *Modern Methods in Business Practice.* ACCOUNTANT, April 9, 1921, p. 423-30.

OILS

Accounting

Turtle, George R. *Accounting for Crude Petroleum Producers.* JOURNAL OF ACCOUNTANCY, April, 1921, p. 250-8.

PACKING

Accounting

Pedigo, Duncan E. *Branch Accounting for Packing Industries.* JOURNAL OF ACCOUNTANCY, April, 1921, p. 259-65.

PARTNERSHIPS

Accounting

Cochran, J. Tullis. *Final Settlement of Partnership Accounts.* ACCOUNTANTS' MAGAZINE, April, 1921, p. 211-9.

Nevill, P. B. *Some Points in Partnership Accounts.* ACCOUNTANT, April 9, 1921, p. 435-8.

PLUMBING TRADE

Accounting

Practical Mathematics an Aid to Progress. DOMESTIC ENGINEERING, March 26, 1921, p. 640-2.

POWER

Cost accounting

Collins, H. E. *Maintenance Department Methods;* distributing the costs. POWER, March 29, 1921, p. 503-6.

PUBLIC UTILITIES

Finance

Mendes, Henry. *Financial Problems Confronting the Public Utilities During the Period of Reconstruction;* a paper presented at the annual convention of the American Electric Railway Accountants' Association at Atlantic City, N. J., October 13, 1920. 16 p.

PURCHASING

Sweet, Guy V. *Purchasing and Handling Material in a Moderate-sized Factory.* INDUSTRIAL MANAGEMENT, May, 1921, p. 335-7.

RAILROADS

Accounting

Mathews, T. W. *Earnings of Individual Passenger Trains;* describing simple method for determining whether selected trains pay out of pocket or other costs. RAILWAY AGE, April 22, 1921, p. 981-3.

Vincent, W. W. *Reconstruction of Railroad Property.* JOURNAL OF ACCOUNTANCY, May, 1921, p. 343-8.

Valuation

Final Valuations Served on Four Railroads; commission adds estimates of cost of acquisition of land to valuations previously served recalled for addition of this item. RAILWAY AGE, April 8, 1921, p. 887-90.

Land and Right-of-Way Valuation Methods of the Interstate Commerce Commission. ENGINEERING AND CONTRACTING, March 16, 1921, p. 260-1.

REPORTS

Palen, J. M. *Grammatical Construction and the Use of Words in Accountants' Reports.* HASKINS AND SELLS BULLETIN, April, 1921, p. 26-8.

RETURNED PURCHASES, ALLOWANCES, ETC.

Umbach, William J. *Returned Goods.* PACE STUDENT, May, 1921, p. 94-5.

STORES SYSTEMS AND STOCK RECORDS

Hall, Herbert C. *How Stockroom Methods Eliminated Machine Delays.* FACTORY, May 1, 1921, p. 1065.

STREET CLEANING

Costs

Street Flushing for Cleanliness; descriptive material and cost data of value to municipal officers. AMERICAN CITY, March, 1921, p. 82-3.

STREET LIGHTING

Costs

Ballard, F. W. *Specific Method for Determining Street Lighting Costs.* AMERICAN CITY, May, 1921, p. 461-2.

SUGAR

Accounting

Barnett, J. L. *Some Characteristics of Producing and Marketing Cuban Sugar.* HASKINS AND SELLS BULLETIN, April, 1921, p. 29-32.

TARIFF

Senate Passes Emergency Tariff Bill. COMMERCIAL AND FINANCIAL CHRONICLE, May 12, 1921, p. 2035-7.

TAXATION

Orcutt, B. S. *Overturn Sales Tax on Commodities.* JOURNAL OF ACCOUNTANCY, May, 1921, p. 349-56.

TAXATION, CANADA

Income and excess profits

Business Profits War Tax; 1920, the Income War Tax Act Amended; Income Tax Rates. CANADIAN CHARTERED ACCOUNTANT, April, 1921, p. 265-73.

TAXATION, GREAT BRITAIN

Revenue Bill. ACCOUNTANT, April 16, 23, 1921, p. 459-67, 482-7, 513.20.

TAXATION, NEW YORK

Income

Graves, Mark. *Amendments of New York Income-tax Law.* JOURNAL OF ACCOUNTANCY, March, 1921, p. 173-5.

TAXATION, UNITED STATES

Moeran, Edward H. *Summary of Tax Exemptions—Liberty Bonds and Victory Notes.* JOURNAL OF ACCOUNTANCY, Feb., 1921, p. 121-3.

Income and excess profits

Addington, Keene H. *Invested Capital from a Legal Standpoint as Applied to Excess and War Profits Taxation.* JOURNAL OF ACCOUNTANCY, Feb., 1921, p. 110-20.

Rossmoore, E. E. *Federal Corporate Income Taxes.* New York, Dodd, Mead & Co., 1921. 338 p. $7.50.

United States Treasury Department. *Regulations 45 (1920 edition) Relating to the Income Tax and War Tax Profits and Excess Profits Tax under the Revenue Act of 1918, Promulgated January 28, 1921.* Washington, Government Printing Office, 1921. 342 p.

TAXES

Van Oss, A. *Computations of Commissions and Federal Taxes where Commissions are Based upon Profits after Deducting Taxes.* JOURNAL OF ACCOUNTANCY, Jan., 1921, p. 1-20.

TEXTILES

Cost accounting

Szepesi, E. *Accurate Costs Without Red Tape.* TEXTILE WORLD, April 9, 1921, p. 2421.

VALUATION

Brown, J. S. *Appraisal Principles Applied to Industrial Properties.* MECHANICAL ENGINEERING, March, 1921, p. 208-9. Discussion. M. G. Farrell, April, 1921, p. 276-7.

Court Decision that Pre-War Price Levels Are Not Applicable in Present Appraisals. ENGINEERING AND CONTRACTING, March 16, 1921, p. 246-7.

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